43622

ENGLISH BOTANY;

OR,

COLOURED FIGURES

OF

BRITISH PLANTS,

WITH THEIR

ESSENTIAL CHARACTERS, SYNONYMS, AND PLACES OF GROWTH.

TO WHICH WILL BE ADDED,

OCCASIONAL REMARKS.

BY

JAMES EDWARD SMITH, M.D. F.R.S.

MEMBER OF THE IMP. ACAD. NATURÆ CURIOSORUM, THE ACADEMIES OF STOCKHOLM, UPSAL, TURIN, LISBON, LUND, BERLIN, PHILADELPHIA, AND THE NAT. HIST. SOCIETY OF PARIS;

PRESIDENT OF THE LINNÆAN SOCIETY.

THE FIGURES BY

JAMES SOWERBY, F.L.S.

——"VIRESQUE ACQUIRIT EUNDO."——*Virg.*

VOL. XIII.

LONDON:

PRINTED BY WILKS AND TAYLOR, CHANCERY-LANE;

And sold by the Proprietor, J. SOWERBY, at No. 2, Mead Place, Lambeth; by Messrs. WHITE, Fleet-street; JOHNSON, St. Paul's Church-yard; SYMONDS, Pater-noster-row; and by all Booksellers, &c. in Town and Country.

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MDCCCI.

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AZALEA procumbens.

Trailing Azalea.

PENTANDRIA Monogynia.

CAL. CHAR. *Cor.* bell-shaped. *Nectary* regular, inserted into the receptacle. *Caps.* superior, 5-celled.

SPEC. CHAR. Branches bending and procumbent. Leaves opposite, ribbed, very smooth.

SYN. *Azalea procumbens. Linn. Sp. Pl. 215. Sp. Pl. Syst. 231. Roy. Lapp. 297. Hall. Helv. 50.*







April 1. 1820. Published by J.t Sowerby London.

AZALEA procumbens.

Trailing Azalea.

PENTANDRIA Monogynia.

GEN. CHAR. *Cor.* bell-ſhaped. *Stamina* regular, inſerted into the receptacle. *Capſ.* ſuperior, 5-celled.

SPEC. CHAR. Branches ſpreading and procumbent. Leaves oppoſite, revolute, very ſmooth.

SYN. Azalea procumbens. *Linn. Sp. Pl.* 215. *Sm. Fl. Brit.* 231. *Hudſ.* 88. *With.* 239. *Hull.* 50. *Lightf.* 139. *Dickſ. H. Sicc. faſc.* 12. 12.

THE heathy ſummits of all the highland mountains of Scotland are clothed with a profuſion of this elegant little ſhrub. We are not certain whether it was firſt obſerved by the Rev. Mr. Stuart of Luſs, or by any of Dr. Hope's travelling pupils, whoſe labours ſo eminently contributed to enrich the *Flora Scotica*. Our ſpecimens were gathered by Mr. Mackay and Mr. G. Don.

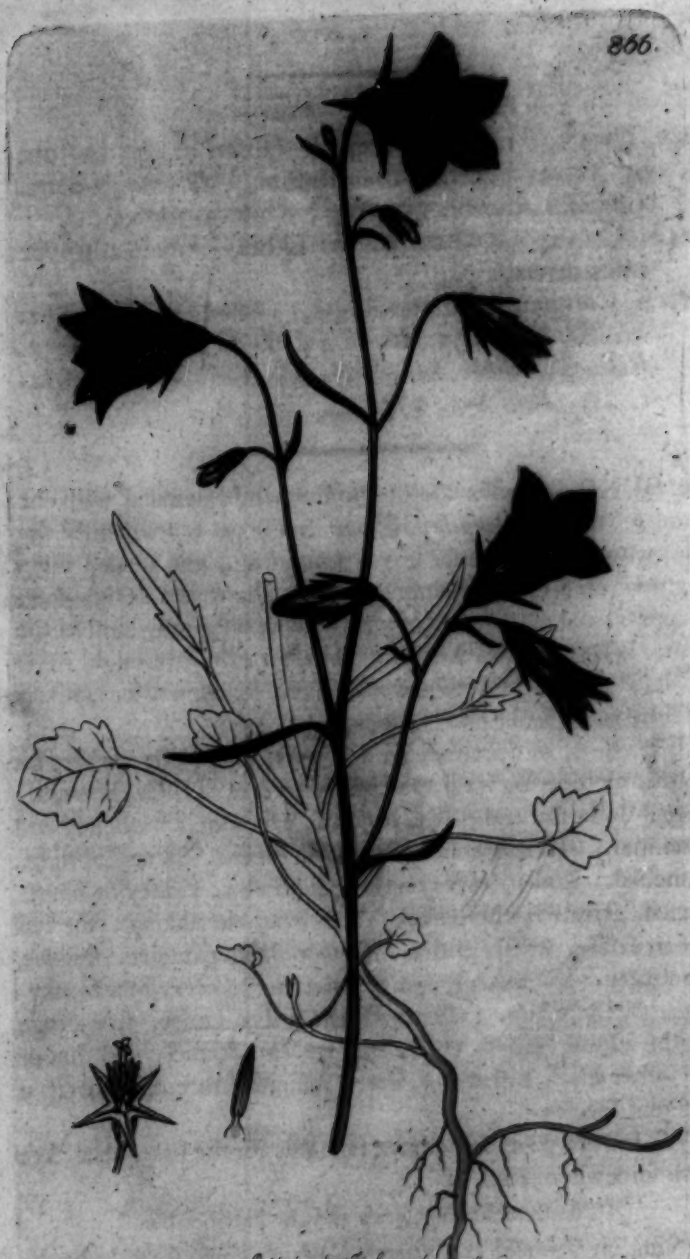
The roots are woody, branched and creeping, running deep into the black moory ſoil among the fiſſures of rocks. Stems alſo much branched, procumbent, buried in moſs, intricate and tufted, taking root occaſionally at their baſe, clothed with numerous, oppoſite, ſmall, elliptical, entire, revolute leaves, very ſmooth ſhining and evergreen, ſtanding on ſhort broad footſtalks, and marked above with a longitudinal furrow, beneath by a projecting nerve. The footſtalks are often fringed. Flower-ſtalks forming a ſort of terminal umbel, each having a concave bractea at its baſe, and bearing one flower. Calyx purpliſh, ſmooth, regularly five-cleft. Corolla roſe-coloured, regular, bell-ſhaped, with a ſpreading five-cleft border. Stamina equal and regular, ſhorter than the corolla. Antheræ violet. Style ſhort, ſtraight. Stigma capitate. Capſule of 5 valves, whoſe inflexed margins divide it into 5 cells containing many ſeeds.

The flowers appear early in July. We believe they are inodorous. The capſules ripen in Auguſt.

CAMPANULA rotundifolia.

Round-leaved Bell-flower.





April 1. 1801 Published by J.t Sowerby London

CAMPANULA rotundifolia.

Round-leaved Bell-flower.

PENTANDRIA Monogynia.

GEN. CHAR. *Cor.* bell-ſhaped, cloſed at the bottom by valves bearing the ſtamina. *Stigma* 3-cleft. *Capſule* inferior, opening by lateral pores.

SPEC. CHAR. Radical leaves kidney-ſhaped: upper ones linear.

SYN. Campanula rotundifolia. *Linn. Sp. Pl.* 232. *Sm. Fl. Brit.* 235. *Hudſ.* 95. *With.* 241. *Hull.* 52. *Relh.* 93. *Sibth.* 80. *Abbot.* 48. *Curt. Lond. faſc.* 4. *t.* 21. *Raii Syn.* 277.

YOUNG botaniſts are not unfrequently puzzled with the name of this *Campanula*, if they find it (as is frequently the caſe) with only the linear leaves remaining; and indeed when it grows on a rich ſoil among buſhes, the round leaves ſoon diſappear, and a profuſion of long narrow ones only clothes the ſtem. It however teaches an uſeful leſſon, that we ought never to decide upon Nature's works from ill-choſen or ſolitary ſpecimens, or haſty obſervations.

It is one of our prettieſt wild flowers, found every where on heaths, mouldering walls, and buſhy borders of fields, flowering from July to the end of the ſeaſon. The root is branched and perennial. Herbage ſmooth, dark green. Stems upright, branched. Lower leaves on long footſtalks, kidney or heart-ſhaped, ſerrated; thoſe above them ovate or oblong; the reſt linear, ſeſſile, moſtly entire. Flower-ſtalks panicled, ſlender, bracteated. Flowers drooping, quivering to every breeze, ſky-blue, rarely white. Teeth of the calyx entire, ſpreading; in the alpine variety erect, but we can ſcarcely find that or any other mark hitherto obſerved ſufficient to conſtitute it a different ſpecies.

We ſuſpect poets ſometimes take this for the hare-bell. We have ſomewhere read of

"The trembling rye-graſs and the hare-bell blue"

growing on "mouldering turrets," which could ſcarcely be the real hare-bell, (ſee our *t.* 377); and probably the ſuppoſed rye-graſs might rather be *Bromus ſterilis*.

DROSERA rotundifolia.

Round-leaved Sun-dew.



PENTANDRIA Trigynia.

GEN. CHAR. *Cal.* 5-cleft. *Petal.* 5. *Caps.* 1-celled, 3-valved. *Seeds* many.

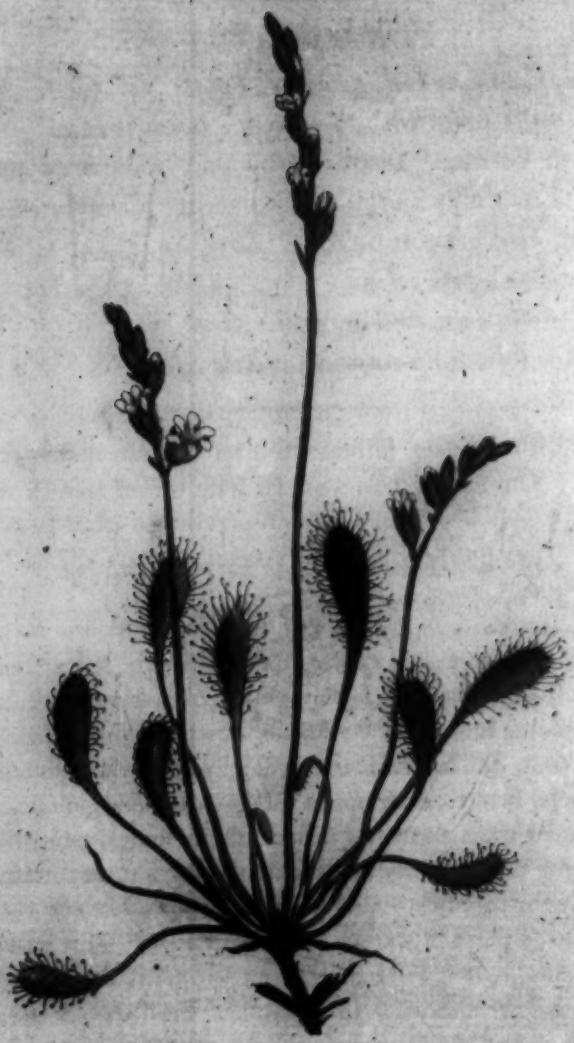
SPEC. CHAR. Leaves orbicular, radical, depressed. Footstalks hairy. Stalk bearing a simple raceme.

SYN. Drosera rotundifolia. *Linn. Sp. Pl.* 402. *Sm. Fl. Brit.* 526. *Huds.* 335. *With.* 323. *Hull.* 57. *Relh.* 131. *Sibth.* 256. *Abbot.* 7.

Ros solis folio rotundo. *Ray Syn.* 216.

EVERY [illegible] flowers in many [illegible] black spongy [illegible] gravelly or sandy soil. They flower [illegible] August, and are all, we believe, perennial.

The [illegible] radical, [illegible] red colour, the [illegible] glandular bristles, [illegible] ornament the margin [illegible] a degree [illegible] the glutinous [illegible] Dionæa, a plant of [illegible] Order. This irritability, if it exists, is only [illegible] do the flowers expand [illegible] simple, naked [illegible] bearing a simple raceme, [illegible] or blue-coloured flowers, [illegible] stamens, and [illegible] of [illegible] this genus. Sometimes the [illegible]



April, 1 1801 Published by Jas Sowerby, London.

DROSERA rotundifolia.

Round-leaved Sun-dew.

PENTANDRIA Hexagynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Capſ.* ſuperior of 1 cell, with 3 valves. *Seeds* many.

SPEC. CHAR. Leaves orbicular, radical, depreſſed. Footſtalks hairy. Stalk bearing a ſimple racemus.

SYN. Droſera rotundifolia. *Linn. Sp. Pl.* 402. *Sm. Fl. Brit.* 346. *Hudſ.* 135. *With.* 323. *Hull.* 67. *Relh.* 131. *Sibth.* 106. *Abbot.* 71.

Ros ſolis ſolio rotund *Raii Syn.* 356.

EVERY *Droſera* hitherto diſcovered grows in boggy ſituations. Our Britiſh ſpecies are far from uncommon in very wet black ſpongy bogs, for the moſt part over a gravelly or ſandy ſoil. They flower in July and Auguſt, and are all, we believe, perennial.

The *rotundifolia* is perhaps the moſt common. Its root is black and fibrous. Leaves numerous, on hairy footſtalks, radical, depreſſed, and forming a ſort of ſtar on the ground or ſurrounding moſs, very conſpicuous by their mingled green and red colour, the latter of which chiefly reſides in the numerous glandular briſtles, each tipped with a clear viſcid globule, which ornament the margin and ſurface of the leaves, and which, by a degree of irritability lately obſerved by ſome naturaliſts, are thought to contract, and to impriſon inſects, like the Canadian *Dionæa*, a plant of the ſame Natural Order. This irritability, if it exiſts, is only to be detected in hot ſunny days, nor indeed do the flowers expand in any other weather. A few erect ſimple naked ſtalks riſe from the crown of the root, each bearing a ſimple *racemus*, or rather, perhaps, a ſpike, of white or bluſh-coloured flowers, with always 5 petals and as many ſtamina, and 3 pair of ſpreading recurved ſtyles. The parts of fructification have not been found to vary in number in this ſpecies. Sometimes the ſtalk is reported to be branched.

DROSERA longifolia.

Long-leaved Sun-dew.



PENTANDRIA *Monogynia.*

GEN. CHAR. *Cal.* 5-cleft. *Pet.* 5. *Caps.* superior, of 1 cell, with 3 valves. *Seeds* many.

SPEC. CHAR. Leaves linear, radical, upright. Stalk bearing a simple raceme.

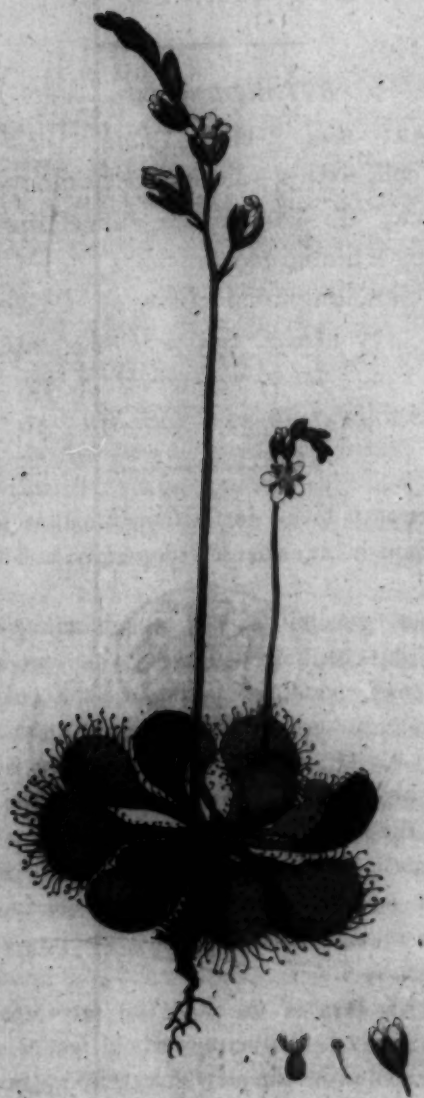
SYN. Drosera longifolia. *Linn. Sp. Pl.* 403. *Sm. Fl. Brit.* 547. *Hudf.* 335. *With.* 324. *Hall.* 67. *Relh.* 132. *Abbot.* 72. *Dickf. H. Sicc. fafc.* 14. 9.

Ros solis folio oblongo. *Bauh. Pin.* 356.

THIS species is found in the same situations as the *D. rotundifolia*, though larger, but less frequently, and flowers at the same season.

Its root and general [illegible] agrees with the former, differing chiefly [illegible] which are all depressed but nearly erect, [illegible] and that form is exactly elliptic, not [illegible] mark of distinction we are obliged to [illegible] with several good [illegible] footstalks of the leaves in the [illegible] and the *angles* they are [illegible] constant. The styles of the [illegible] author, vary from 6 to 8 full as [illegible] The petals and stamina also are [illegible].

Choiseul observes of this, as the preceding have been stated by the [illegible] Whether specimens are now before us, [illegible] the present worthy botanical Professor of Oxford. Dr. Hall mentions only the *longifolia* in such a state. We are perfuaded these are merely varieties, in which we are confirmed by the authority of Lightfoot, Curtis and Gouan, (whose [illegible]) in which species that are only found because [illegible] nutriment.



April 1 1801. Published by Jas Sowerby London.

DROSERA longifolia.

Long-leaved Sun-dew.

PENTANDRIA Hexagynia.

GEN. CHAR. *Cal.* 5-cleft. *Pet.* 5. *Capſ.* ſuperior, of 1 cell, with 3 valves. *Seeds* many.

SPEC. CHAR. Leaves obovate, radical, upright. Stalk bearing a ſimple racemus.

SYN. Droſera longifolia. *Linn. Sp. Pl.* 403. *Sm. Fl. Brit.* 347. *Hudſ.* 135. *With.* 324. *Hull.* 67. *Relh.* 132. *Abbot.* 72. *Dickſ. H. Sicc. faſc.* 14. 9. Ros ſolis folio oblongo. *Raii Syn.* 356.

THIS ſpecies is found in the ſame ſituations as the *D. rotundifolia*, though ſomewhat leſs frequently, and flowers at the ſame ſeaſon.

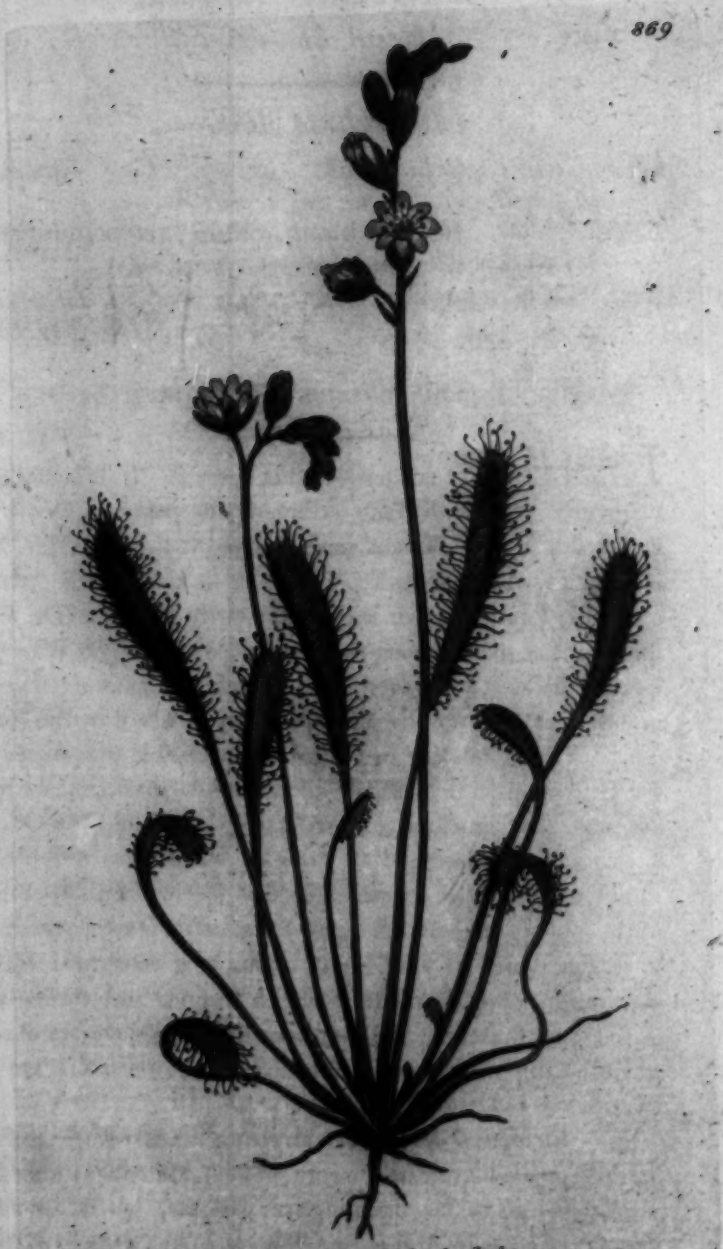
In root and general habit it altogether agrees with the former, differing chiefly in its leaves, which are not depreſſed, but nearly erect, ſtanding on long ſtalks, and their form is exactly obovate, not orbicular. For another mark of diſtinction we are obliged to Dr. Hull, (who has enriched his *Flora* with ſeveral good obſervations on the genus,) that the footſtalks of the leaves in the *rotundifolia* are hairy; in this and the *anglica* they are ſmooth, and we find this difference conſtant. The ſtyles of the *longifolia*, according to this author, vary from 6 to 8 full as often as in *D. anglica*. The petals and ſtamina alſo are frequently 6.

Cauleſcent varieties of this and the preceding have been found by the late Dr. Withering, whoſe ſpecimens are now before us, as well as by the preſent worthy botanical Profeſſor of Oxford. Dr. Hull mentions only the *longifolia* in ſuch a ſtate. We are perſuaded theſe are merely varieties, in which we are confirmed by the analogy of *Carduus*, *Carlina* and *Onopordum*, (ſome would add *Primula*,) in which ſpecies that are truly *acaules* become cauleſcent by luxuriant nouriſhment.

DROSERA anglica.

Great Sun-dew.





April 1. 1801. Published by Jas Sowerby, London.

DROSERA anglica.

Great Sun-dew.

PENTANDRIA Hexagynia.

GEN. CHAR. *Cal.* 5-cleft. *Pet.* 5. *Capſ.* ſuperior, of 1 cell, with 3 valves. *Seeds* many.

SPEC. CHAR. Leaves oblong, obtuſe, radical, upright. Styles eight. Capſules with four valves.

SYN. Droſera anglica. *Hudſ.* 135. *Sm. Fl. Brit.* 347. *With.* 324. *Hull.* 68. *Abbot.* 72. *Dickſ. H. Sicc. faſc.* 2. 7.

Rorella longifolia maxima. *Raii Syn.* 356.

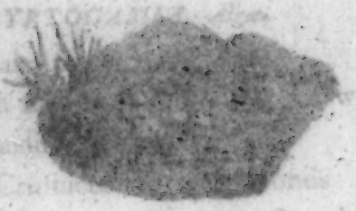
LINNÆUS has not noticed this ſpecies. It is by far leſs frequently met with than either of the others. We have gathered it in Norfolk, and have received it from the Rev. Mr. Abbot, as well as from Dr. Hull. It is moſt nearly related to the *D. longifolia*, but is generally twice as large. Dr. Hull thinks it not more frequently furniſhed with 8 ſtyles than that ſpecies. We have however found 8 petals and as many ſtamina in ſome plants, a number exceeding any obſerved in the *longifolia*. The more elongated form of the capſule mentioned by Dr. Hull promiſes to be a good diſcriminative mark, but we have not had an opportunity of obſerving it. The baſe of the flower-ſtalk being curved or ſtraight, ſeems to us variable.

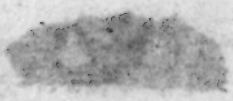
The moſt certain character of this ſpecies ſeems to conſiſt in the oblong and almoſt linear form of its leaves, which we have not found to vary. Our opinion is confirmed by the obſervations of the Rev. Mr. Forby, who finds both theſe plants in the ſame ſituation, and even entangled together, but always retaining this difference in their foliage, however the parts of fructification may vary in number.

Some theoretical doctors of old, ſeeing the perpetual moiſture on the Sun-dew even in the greateſt heat, thought it would be a good medicine for conſumptive patients, whoſe moiſture they ſuppoſed to be drying up. But good old Gerarde confeſſes that thoſe who took this new reſtorative died the ſooneſt; which is no wonder, conſidering its acrid nature.

LICHEN decipiens.

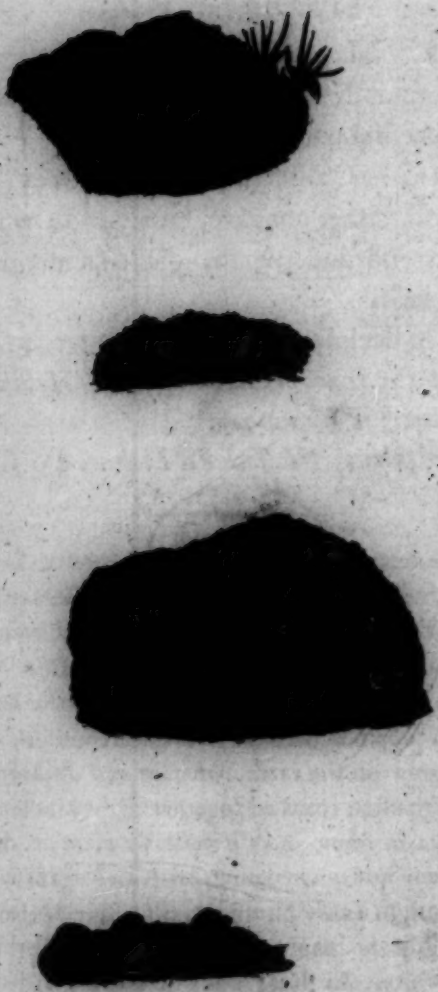
Stellated Ground Lichen.











April 1. 1801. Published by Jas. Sowerby, London.

LICHEN decipiens.

Stellated Ground Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, ſcattered warts.

Female, ſmooth ſhields or tubercles, in which the ſeeds are imbedded.

SPEC. CHAR. Cruſtaceous; the fronds ſeparate, roundiſh, rather concave, tawny-red; white at the margin and underneath. Shields marginal, convex, black.

SYN. Lichen decipiens. *Hedwig. Crypt. v. 2. t. 1. f. B. Achar. Prod. 96. With. v. 4. 26. Hull. 293.*

L. ſtellatus. *Relh. 430.*

Pſora decipiens. *Hoffm. Pl. Lich. t. 43. f. 1—3.*

WE have received ſpecimens of this pretty Lichen, not only from Gogmagog hills by favour of Mr. Relhan, who firſt found it in Britain, and of Mr. Holme, but even from the highland mountains of Scotland, where the Rev. Mr. Stuart and Mr. Don collected it. The latter is a new ſtation for a plant hitherto ſuppoſed peculiar to a calcareous ſoil.

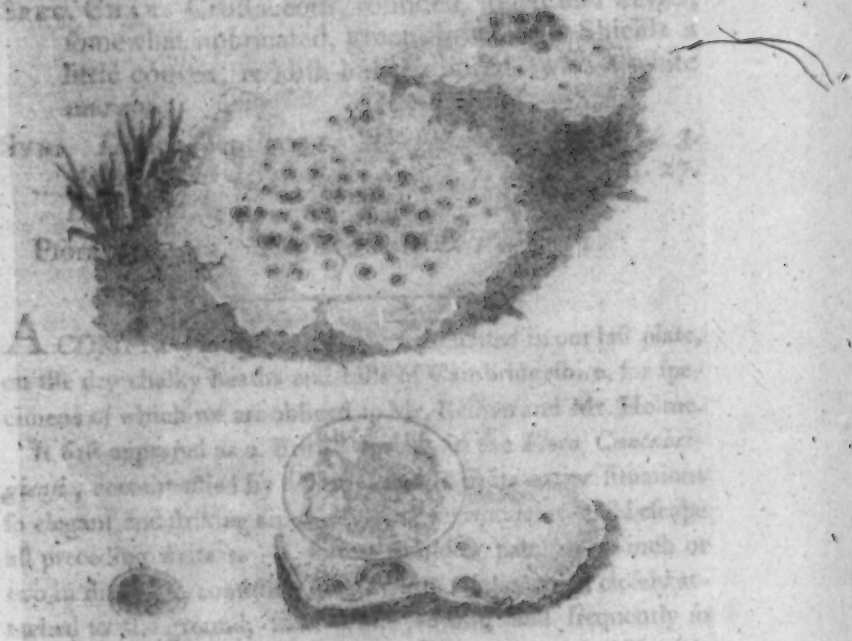
Its fronds grow on the earth, ſeparate and diſtinct, not imbricated, though often crowded together as they increaſe in ſize. They are concave, roundiſh or irregularly angular, of a bright reddiſh or tawny hue when young, with an elegant white edge, ſo that they might eaſily be miſtaken for ſhields (ſee Relhan); whence probably the name *decipiens* given by Ehrhart. The under ſide is white. In decay the whole frond turns to a dark dirty brown. The real ſhields are marginal, black, at length convex, and almoſt globular, frequently remaining after the frond that bears them is turned quite brown and decayed.

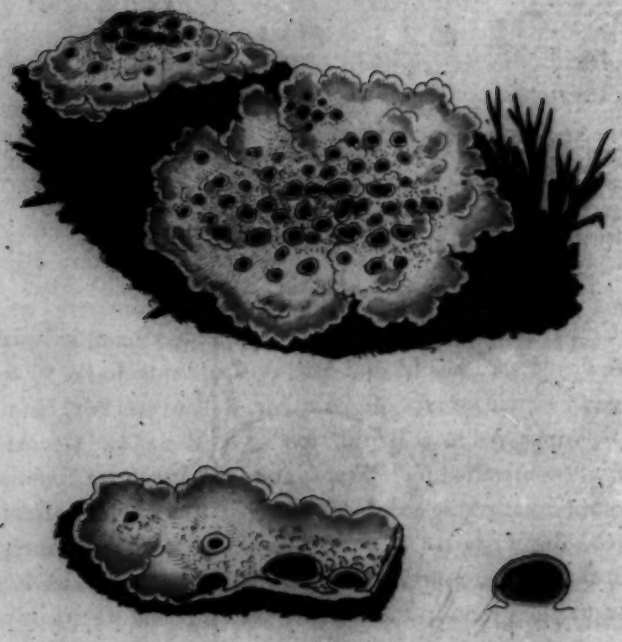
This Lichen is well figured and deſcribed under the name of *elveloides* by Wulfen in *Jacq. Coll. v. 3. 103. t. 3. f. 3.*

[1]

LICHEN fruticosus.

Shrubby Cup Lichen.





May 1. 1801. Published by Jas. Sowerby, London.

LICHEN lentigerus.
White Ground Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, ſcattered warts.

Female, ſmooth ſhields or tubercles, in which the ſeeds are imbedded.

SPEC. CHAR. Cruſtaceous, rounded, lobed and waved, ſomewhat imbricated, greeniſh white. Shields a little convex, reddiſh buff-coloured, with a white margin.

SYN. Lichen lentigerus. *Weber. Goett.* 192. *t.* 3. *Achar. Prod.* 103. *Relh.* 430. *t.* 7. *With. v.* 4. 27. *Hull.* 292.

Pſora lentigera. *Hoffm. Pl. Lich. t.* 48. *f.* 1.

A COMPANION of the Lichen repreſented in our laſt plate, on the dry chalky heaths and hills of Cambridgeſhire, for ſpecimens of which we are obliged to Mr. Relhan and Mr. Holme.

It firſt appeared as a Britiſh ſpecies in the *Flora Cantabrigienſis*, accompanied by a figure, and is in its native ſituations ſo elegant and ſtriking an object, that we wonder it could eſcape all preceding writers. It forms roundiſh patches an inch or two in diameter, conſiſting of a thickiſh chalky cruſt, cloſely attached to the ground, ſnow-white within, and frequently ſo on the upper ſide, though generally tinged (when moiſt) with a pale green hue, particularly near the circumference, which is crenate lobed and undulated, the very edge being pure white. The whole plant has, as Weber expreſſes it, a kind of porcelain-like brilliancy. The ſhields are numerous, moderately raiſed, with a ſlightly convex diſk of a waxy browniſh buff-colour, ſurrounded by a white border. By age apparently they become ſprinkled with little black protuberances, which ſhould ſeem to be the ſeeds; and yet we have found them on ſome ſhields whoſe ſmall ſize, and therefore probably tender age, ſcarcely authoriſed this opinion, and would rather induce a ſuſpicion of theſe black ſubſtances being paraſitical.

LICHEN florid[illegible]

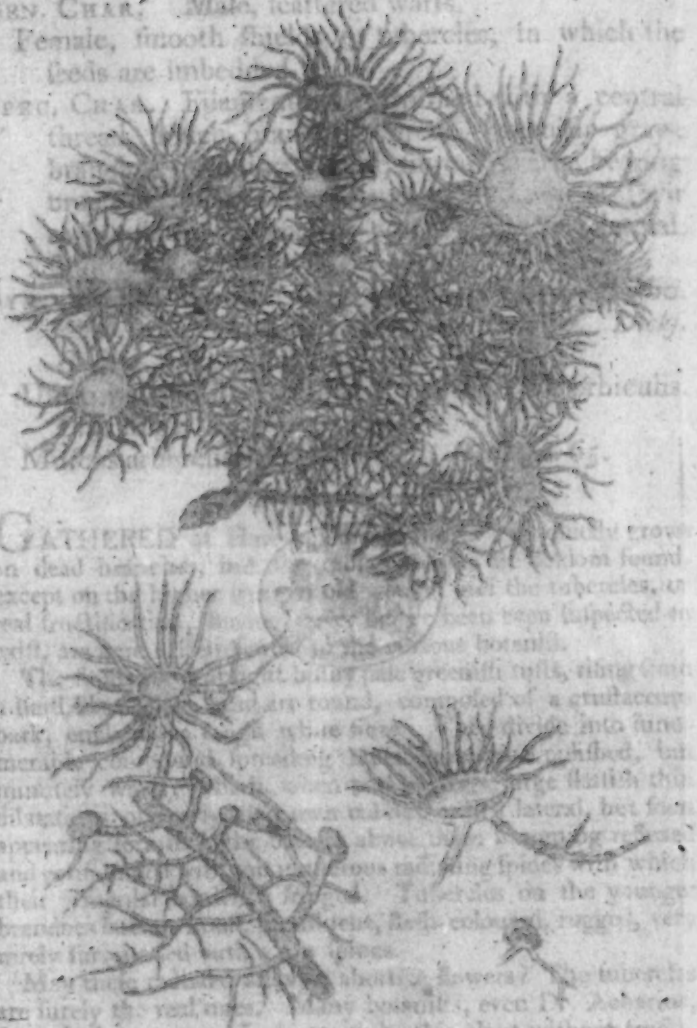
Flowery Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, feathered warts.

Female, smooth [illegible] tubercles, in which the seeds are imbe[illegible]

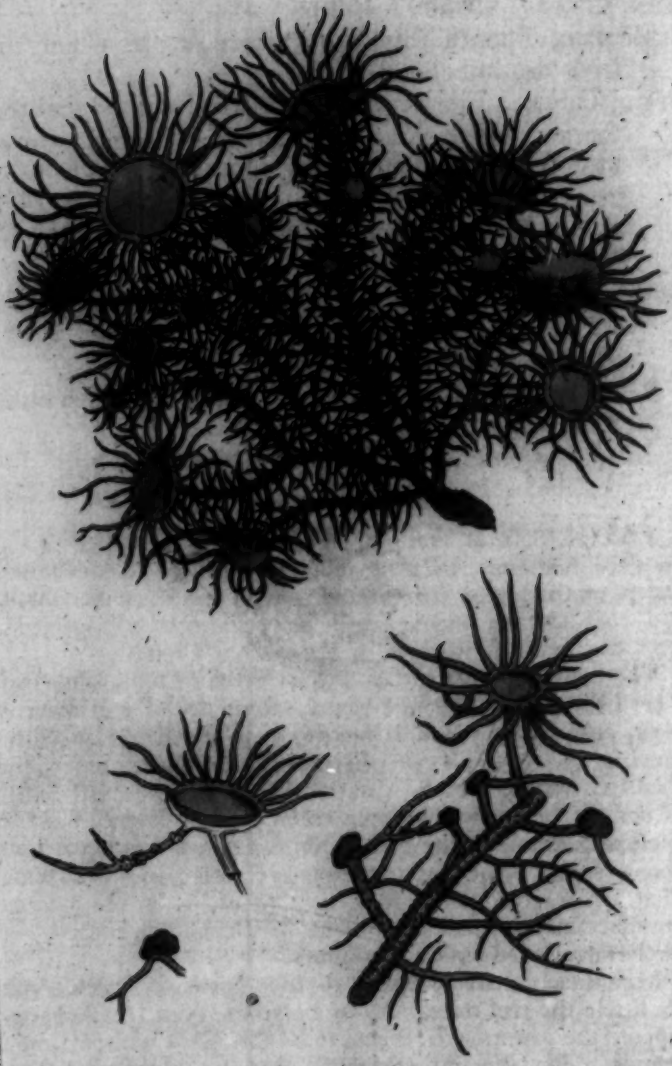
SPEC. CHAR. [illegible] central [illegible]



GATHERED [illegible] on dead branches, [illegible] found except on this [illegible] real [illegible] spirit [illegible] bosmith.

[illegible] ...ellish rusts, rising [illegible] ...ellary tunics, composed of a crustaceous [illegible] ...ance into fund[illegible] ...ncreased, but [illegible] ...ge dusky [illegible] ...ellow natural, but [illegible] ...appearance [illegible] ...ing spores with [illegible] ...ellow tubercles on the younger [illegible] ...ellow, scarlet-coloured, roughish, very [illegible] ...ellow tubercles.

[illegible] ...ellow; the tubercles are surely the real [illegible] ...ellow bosmith, even if *Dickson* suppose the contrary. *L. florida* to be this plant without fructification. Ray thought otherwise, and we suspect him to be right; for we have some American specimens of *florida* with bell-coloured tubercles, growing on the *capitata*, not on the [illegible] ...ellow. Perhaps [illegible] ...ellow fortunate observer may detect these in England. *L. coccifera* of Acharius seems full distinct from both these species.



Mary Lawson Published 1st by J. Sowerby London.

LICHEN floridus.

Flowery Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, ſcattered warts.

Female, ſmooth ſhields or tubercles, in which the ſeeds are imbedded.

SPEC. CHAR. Filamentous, furniſhed with a central thread, much branched, erect, greeniſh gray; branches ſpreading, round, fibrous, warty, bearing broad flat ſhield-like radiated dilatations, of their own colour. Tubercles on the branches, lateral, fleſh-coloured, rugged.

SYN. Lichen floridus. *Linn. Sp. Pl.* 1624. *Hudſ.* 560. *With. v.* 4. 50. *Hull.* 307. *Relh.* 440. *Dickſ. H. Sicc. faſc.* 11. 25. *Achar. Prod.* 224.

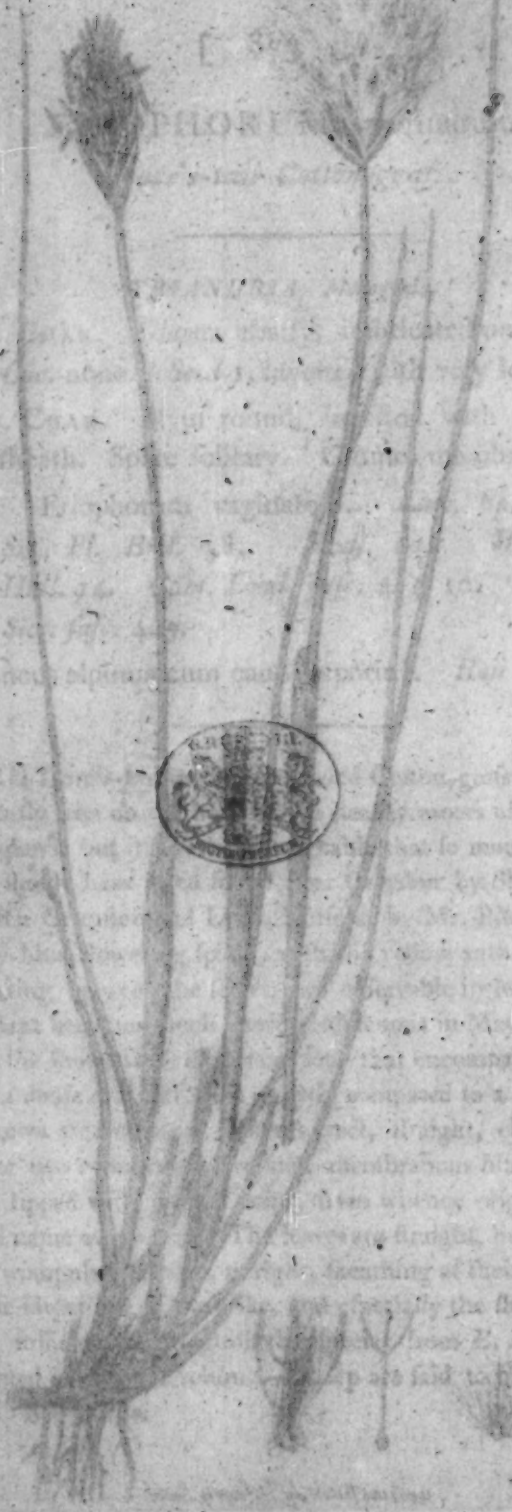
Uſnea vulgatiſſima tenuior et brevior, cum orbiculis. *Dill. Muſc.* 69. *t.* 13. *f.* 13.

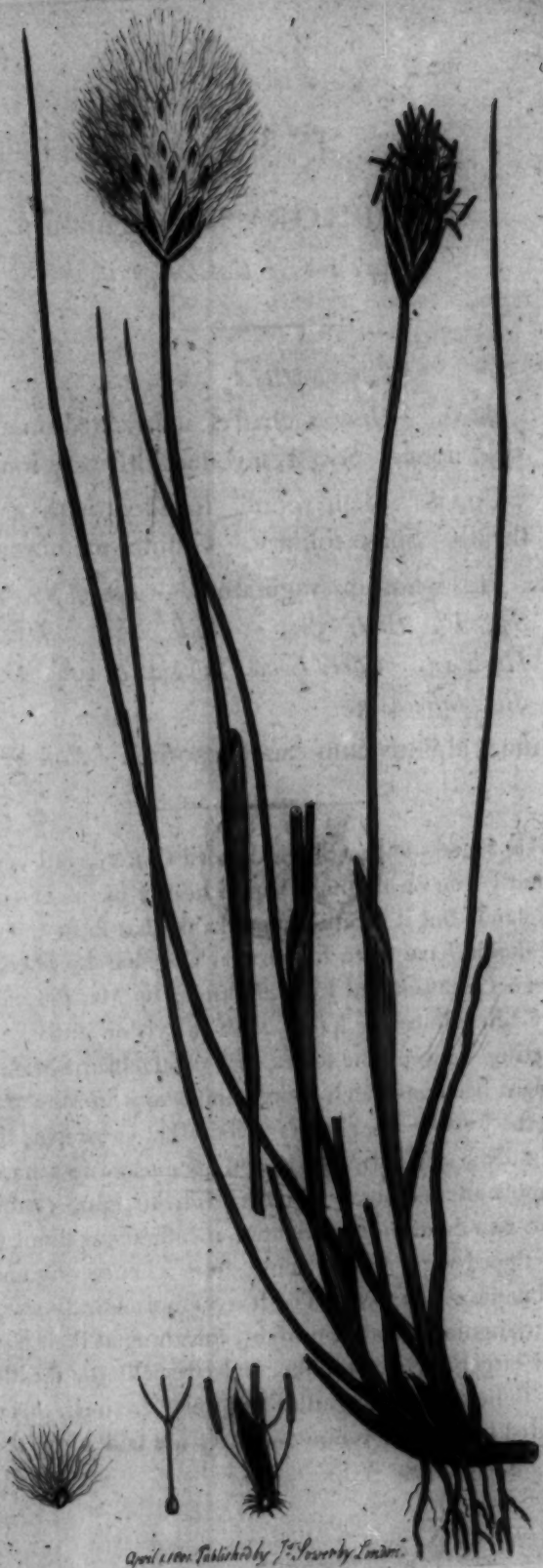
Muſcus arboreus cum orbiculis. *Raii Syn.* 65.

GATHERED at Hafod, Cardiganſhire. It chiefly grows on dead branches, but the radiated diſks are ſeldom found, except on the higher trees in old woods; and the tubercles, or real fructification, having never before been even ſuſpected to exiſt, are here firſt preſented to the curious botaniſt.

The ſtems form upright buſhy pale greeniſh tufts, riſing from a hard black baſe, and are round, compoſed of a cruſtaceous bark, encloſing a tough white fibre. They divide into innumerable compound ſpreading taper branches, poliſhed, but minutely warty, which, when perfect, bear large flattiſh thin dilatations, of nearly their own colour, at firſt lateral, but ſoon appearing terminal, the branch above them becoming reflexed and confounded with the numerous radiating ſpines with which their irregular border is fringed. Tubercles on the younger branches lateral, ſmall, prominent, fleſh-coloured, rugged, very rarely ſurrounded with a few ſpines.

May theſe radiated diſks be abortive flowers? The tubercles are ſurely the real ones. Many botaniſts, even Dr. Acharius, ſuppoſe the common *L. hirtus* to be this plant without fructification. Ray thought otherwiſe, and we ſuſpect him to be right; for we have ſome American ſpecimens of *hirtus* with fleſh-coloured tubercles growing *on the main ſtem*, not on the branches, which may afford a ſpecific difference. Perhaps ſome fortunate obſerver may detect theſe in England. *L. comoſus* of Acharius ſeems ſtill diſtinct from both theſe ſpecies.





April 1 1800 Published by J.t Sowerby London.

ERIOPHORUM vaginatum.

Hare's-tail Cotton-graſs.

TRIANDRIA Monogynia.

GEN. CHAR. *Glumes* chaffy, imbricated on all ſides. *Cor.* none. *Seed* 1, inveſted with very long hairs.

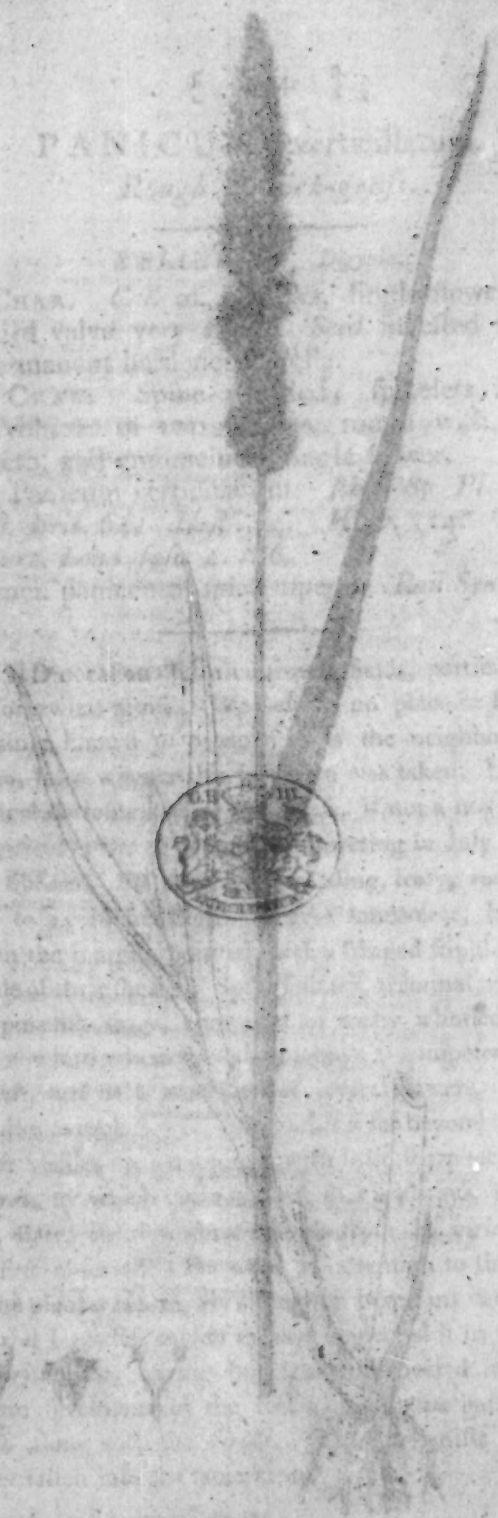
SPEC. CHAR. Stem round, inveſted with a tubular ſheath. Spike ſolitary. Glumes membranous.

SYN. Eriophorum vaginatum. *Linn. Sp. Pl.* 76. *Sm. Fl. Brit.* 58. *Hudſ.* 22. *With.* 71. *Hull.* 14. *Curt. Lond. faſc.* 4. *t.* 10. *Dickſ. H. Sicc. faſc.* 4. 3.

Juncus alpinus cum caudâ leporinâ. *Raii Syn.* 436.

THE Hare's-tail or Single-headed Cotton-graſs is not unfrequently ſeen on the high barren heathy moors of the north of England, but it is rather remarkable that ſo mountainous a plant ſhould have been found near Croydon by Sherard, and between Grimſton and Lynn, Norfolk, by Mr. Pitchford. Its ſilvery-blue flowering ſpikes, with the yellow antheræ a little projecting between the ſcales, are obſervable in March; but the plant becomes much more conſpicuous in May and June, when the ſnow-white cluſters of hair that encompaſs the ſeeds form a denſe oval tuft, not unaptly compared to a hare's-tail. The roots are perennial. Stems erect, ſtraight, clothed with one or two cylindrical, ſwelling, membranous blunt ſheaths, often tipped with a ſmall point, from whence originated the trivial name *vaginatum*. The leaves are ſtraight, linear, ſomewhat triangular, ſmooth, upright, ſheathing at their baſe.

The larger ſize of the ſpike, and eſpecially the ſheath of the ſtem, ſufficiently diſtinguiſh this ſpecies from *E. alpinum* repreſented in our 5th volume.—Sheep are ſaid to be very fond of it. See Curtis.





May 1 1801 Published by J. Sowerby London

PANICUM verticillatum.

Rough Panick-graſs.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 3 valves, ſingle-flowered; the third valve very ſmall. *Seed* inveſted with the permanent hardened corolla.

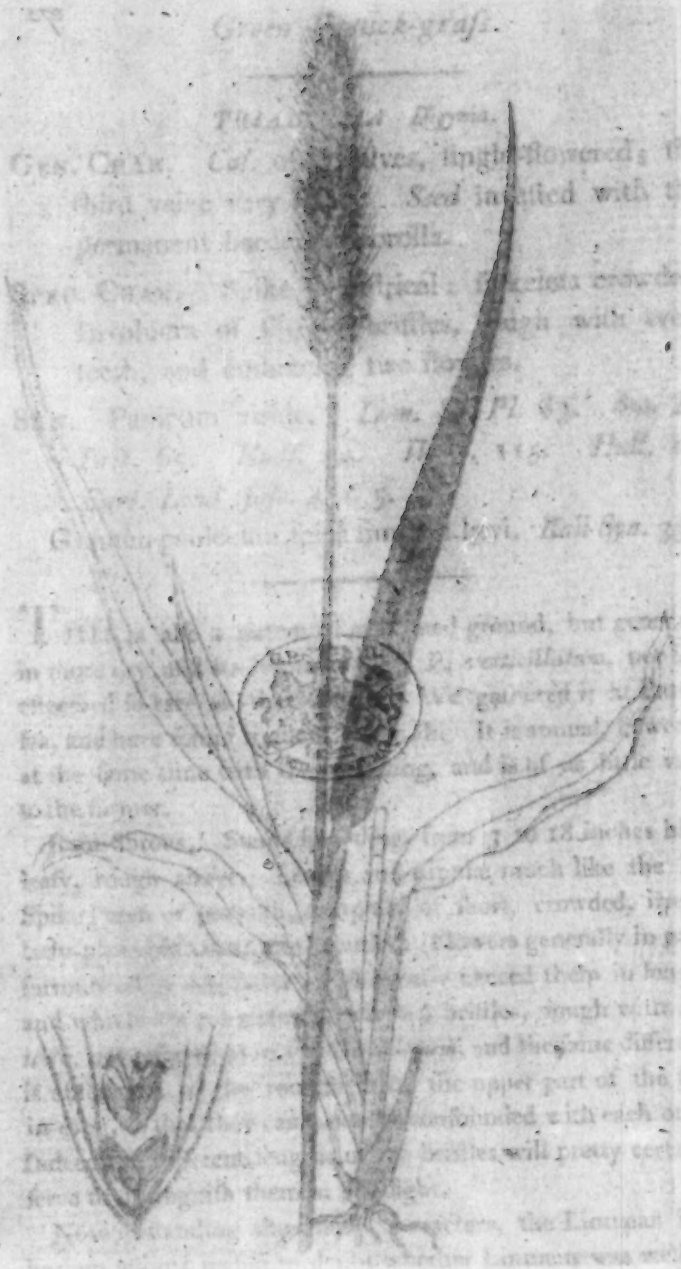
SPEC. CHAR. Spike whorled; ſpikelets in fours. Involucra of two briſtles, rough with reverſed teeth, and embracing a ſingle flower.

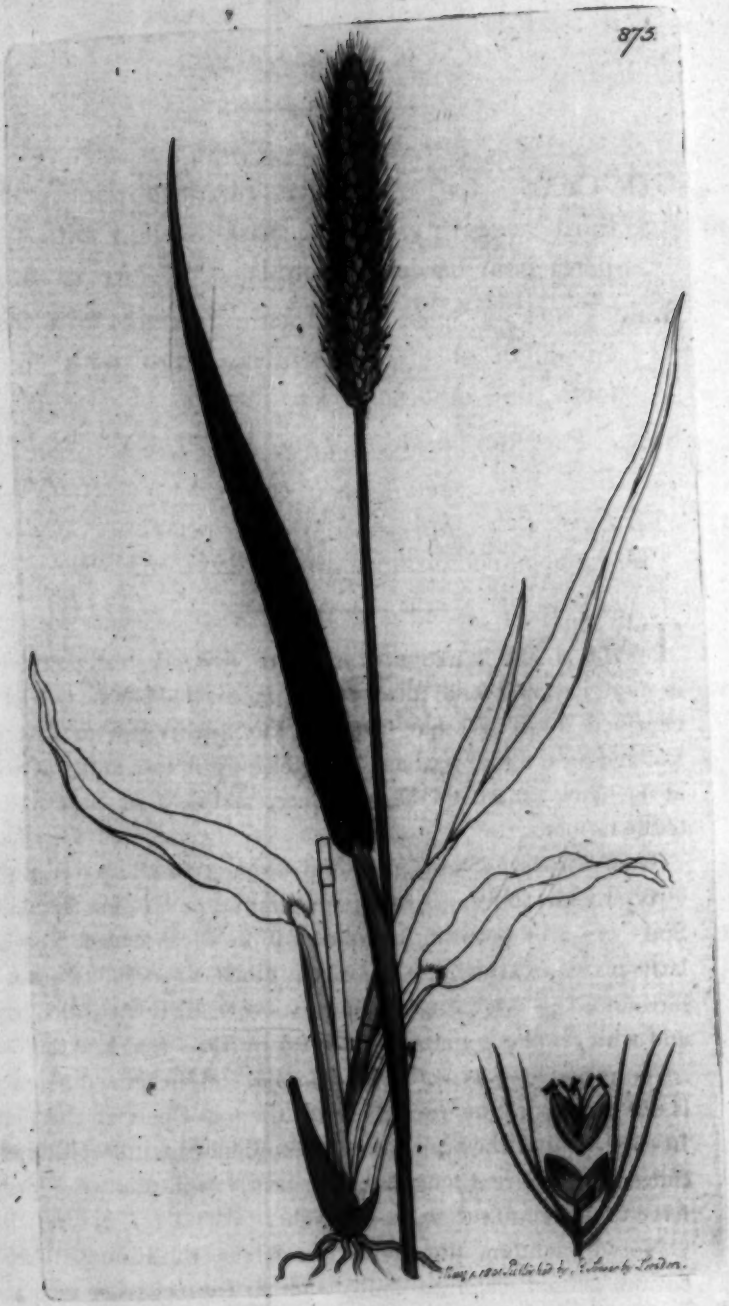
SYN. Panicum verticillatum. *Linn. Sp. Pl.* 82. *Sm. Fl. Brit.* 64. *Hudſ.* 24. *With.* 114. *Hull.* 15. *Curt. Lond. faſc.* 4. *t.* 6.

Gramen paniceum, ſpicâ aſperâ. *Raii Syn.* 394.

FOUND occaſionally in cultivated fields, particularly ſuch as are ſomewhat moiſt. We believe no place in England is ſo certainly known to produce it as the neighbourhood of Batterſea, from whence this ſpecimen was taken. It is merely a botanical curioſity, being an uſeleſs, if not a noxious, weed to the agriculturiſt. It is annual, flowering in July or Auguſt.

Root fibrous. Stems widely ſpreading, leafy, rough above, from 6 to 24 inches high. Leaves lanceolate, harſh, very rough on the margin, pointed, with a fringed ſtipula crowning the inſide of their ſheath. Spike ſolitary, terminal, erect, green with a purpliſh tinge, compoſed of many whorled ſpikelets, four in a whorl when the plant enjoys a competent ſhare of nutriment, and each conſiſting of ſeveral flowers. *Involucra* of 2 briſtles to each flower, not reaching far beyond the flowers, and theſe briſtles are very rough with little ſharp teeth *pointing backwards*, by which curious mark this is always, in however dwarf a ſtate, clearly diſtinguiſhable from *P. viride*, as Mr. Curtis firſt obſerved. For want of attention to this circumſtance the plant was formerly thought a luxuriant variety of the *viride*, and I confeſs myſelf to have neglected it in writing the *Flora Britannica*, having but lately diſcovered in my own herbarium ſpecimens of the real *verticillatum* gathered near Norwich along with the *viride*. Other botaniſts have very generally fallen into the ſame error.





Curtis's Botanical Magazine, Published by S. Curtis, London.

PANICUM viride.

Green Panick-graſs.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 3 valves, ſingle-flowered; the third valve very ſmall. *Seed* inveſted with the permanent hardened corolla.

SPEC. CHAR. Spike cylindrical; ſpikelets crowded. Involucra of ſeveral briſtles, rough with erect teeth, and embracing two flowers.

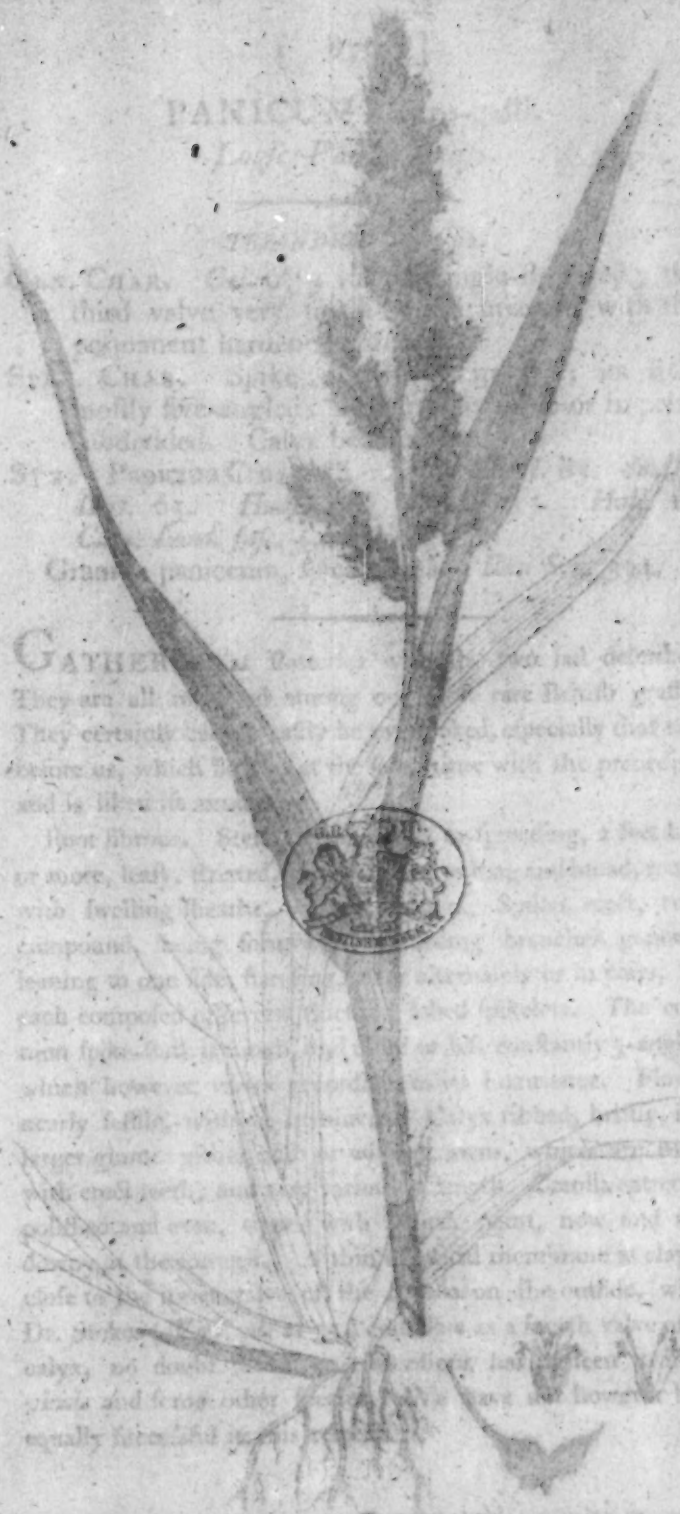
SYN. Panicum viride. *Linn. Sp. Pl.* 83. *Sm. Fl. Brit.* 65. *Hudſ.* 24. *With.* 115. *Hull.* 15. *Curt. Lond. faſc.* 4. *t.* 5.

Gramen paniceum, ſpicâ ſimplici lævi. *Raii Syn.* 393.

THIS is alſo a native of cultivated ground, but generally in more dry and ſandy places than *P. verticillatum*, nor is it eſteemed ſo rare as that ſpecies. We gathered it at Batterſea, and have found it about Norwich. It is annual, flowering at the ſame time with the preceding, and is of as little value to the farmer.

Root fibrous. Stems ſpreading, from 3 to 18 inches high, leafy, rough above. Leaves and ſtipulæ much like the laſt. Spike green or purpliſh, compoſed of ſhort, crowded, irregularly-placed ſpikelets, not whorled. Flowers generally in pairs, ſurrounded by *involucra* which greatly exceed them in length, and which are compoſed of about 6 briſtles, rough with *erect teeth*, not reflexed as in *P. verticillatum*, and the ſame difference is obſervable in the roughneſs of the upper part of the ſtem in each, ſo that they can never be confounded with each other. Indeed the different lengths of the briſtles will pretty certainly ſerve to diſtinguiſh them at firſt ſight.

Notwithſtanding the above characters, the Linnæan herbarium affords reaſon to doubt whether Linnæus was well acquainted with the limits of theſe two ſpecies.





Pub. 1 1801 Published by J. Sowerby London.

PANICUM Crus-galli.

Looſe Panick-graſs.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 3 valves, ſingle-flowered; the third valve very ſmall. *Seed* inveſted with the permanent hardened corolla.

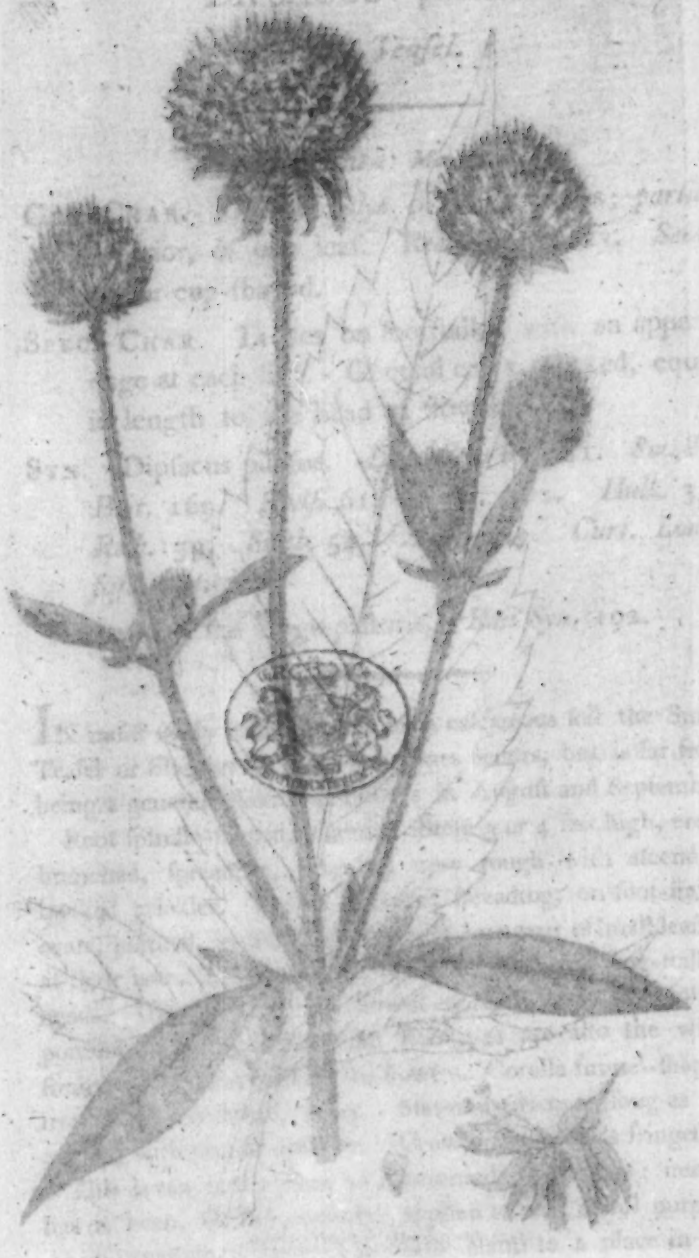
SPEC. CHAR. Spike doubly compound; its ſtalk moſtly five-angled: ſpikelets alternate or in pairs, ſubdivided. Calyx bearded, rough.

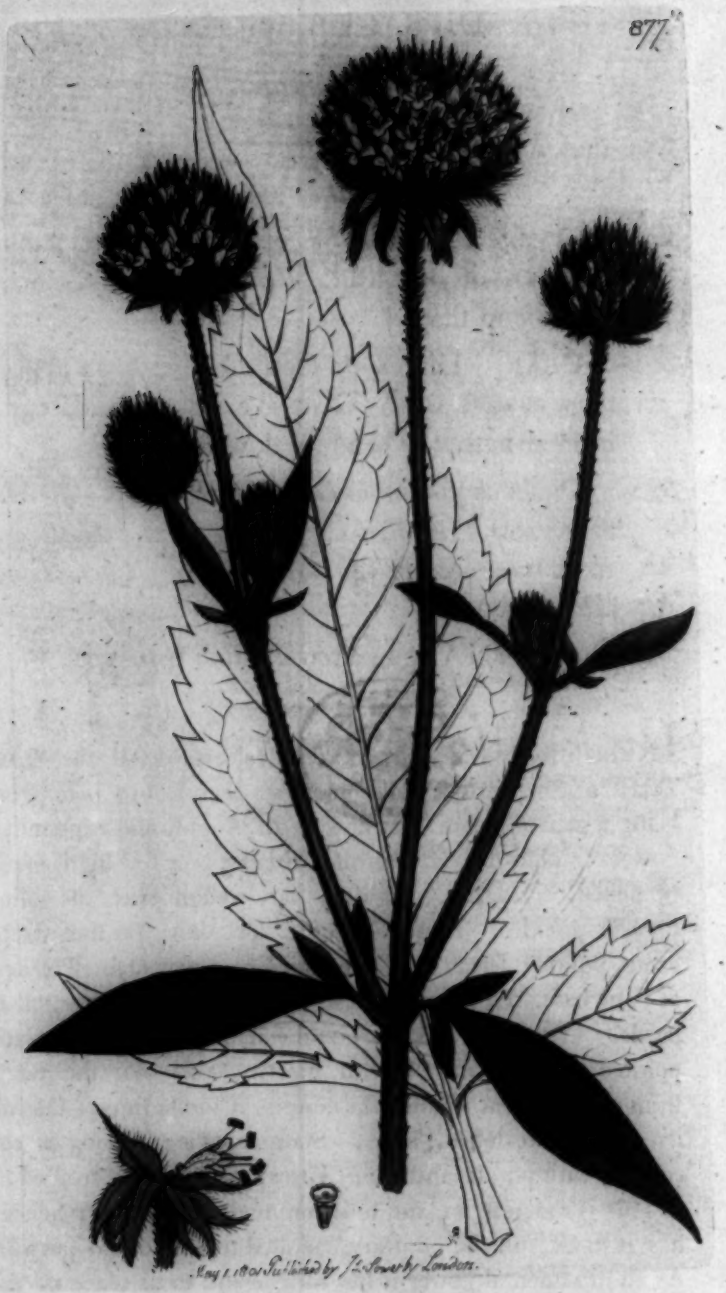
SYN. Panicum Crus-galli. *Linn. Sp. Pl.* 83. *Sm. Fl. Brit.* 65. *Hudſ.* 24. *With.* 115. *Hull.* 15. *Curt. Lond. faſc.* 4. *t.* 8.

Gramen paniceum, ſpicâ diviſâ. *Raii Syn.* 394.

GATHERED at Batterſea with the two laſt deſcribed. They are all reckoned among our moſt rare Britiſh graſſes. They certainly cannot eaſily be overlooked, eſpecially that now before us, which flowers at the ſame time with the preceding, and is likewiſe annual.

Root fibrous. Stems ſtrong, erect or ſpreading, 2 feet high or more, leafy, ſtriated, ſmooth. Leaves long and broad, rough, with ſwelling ſheaths, without ſtipulæ. Spikes erect, twice compound, being formed of ſpreading branches generally leaning to one ſide, ſtanding either alternately or in pairs, and each compoſed of ſeveral thick-ſet lobed ſpikelets. The common ſpike-ſtalk is rough, and more or leſs conſtantly 5-angled; which however varies according to its luxuriance. Flowers nearly ſeſſile, without involucra. Calyx ribbed, briſtly, its 2 larger glumes either with or without awns, which are rough with erect teeth, and very various in length. Corolla extremely poliſhed and even, tipped with a little point, now and then downy at the ſummit. A thin elliptical membrane is clapped cloſe to the inner valve of the corolla on the outſide, which Dr. Stokes (*With. ed.* 2. 55.) conſiders as a fourth valve of the calyx, no doubt juſtly, and mentions having ſeen it in the *viride* and ſome other ſpecies. We have not however been equally ſucceſsful in this reſpect.





May 1 1805 Published by J. Sowerby London.

DIPSACUS piloſus.

Small Teaſel.

TETRANDRIA Monogynia.

GEN. CHAR. *General calyx* of many leaves; *partial* ſuperior, of one leaf. *Receptacle* chaffy. *Seed-crown* cup-ſhaped.

SPEC. CHAR. Leaves on footſtalks, with an appendage at each ſide. General calyx reflexed, equal in length to the head of flowers.

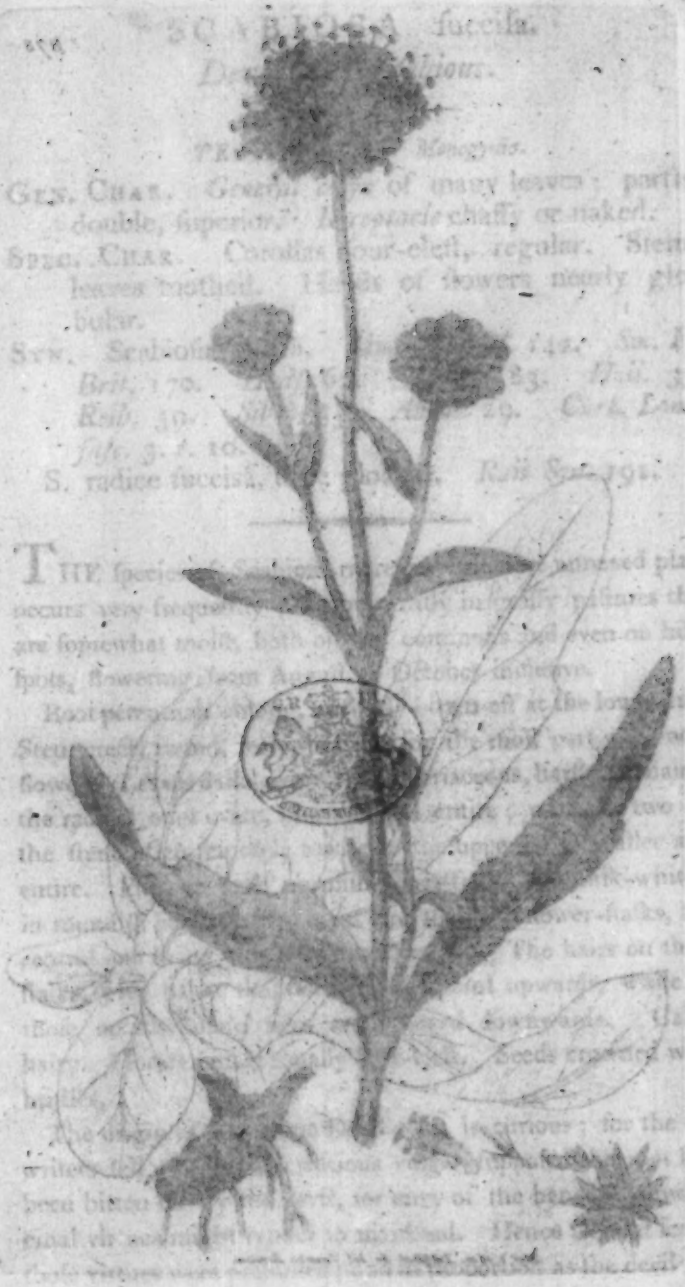
SYN. Dipſacus piloſus. *Linn. Sp. Pl.* 141. *Sm. Fl. Brit.* 169. *Hudſ.* 61. *With.* 182. *Hull.* 33. *Relh.* 59. *Sibth.* 54. *Abbot.* 29. *Curt. Lond. faſc.* 1. *t.* 10.

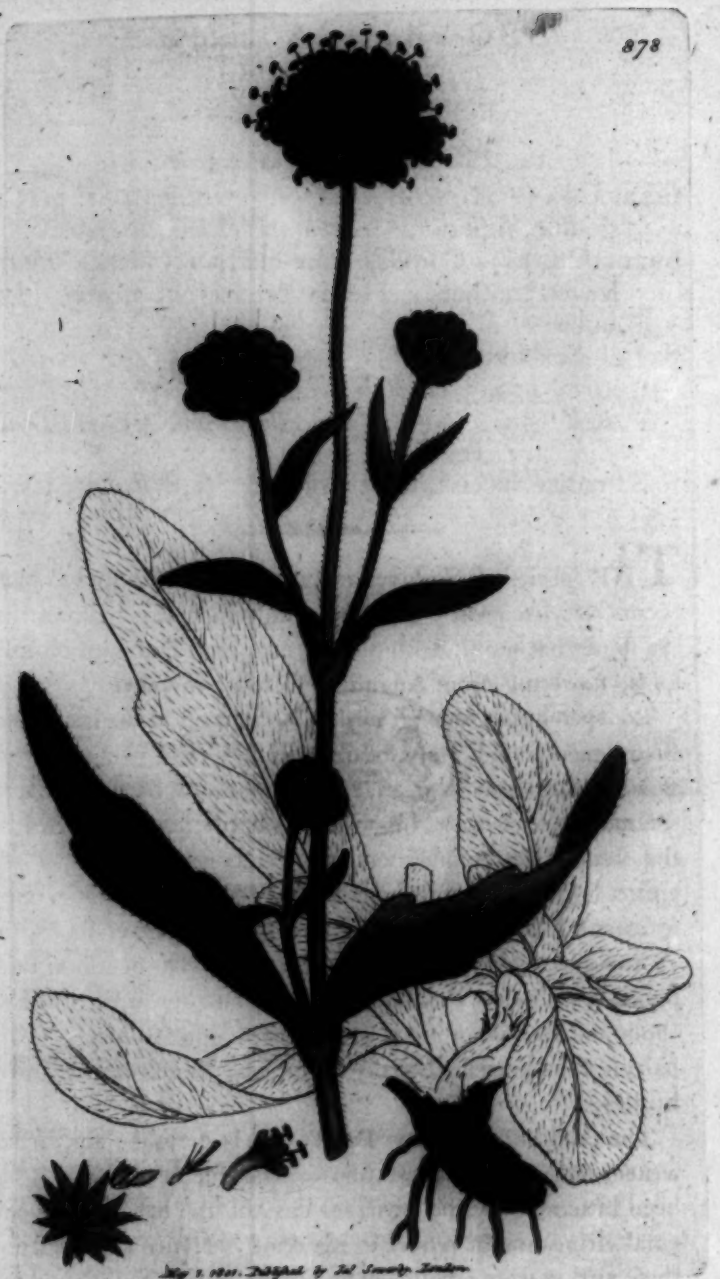
D. minor, ſeu Virga paſtoris. *Raii Syn.* 192.

IN moiſt ſhady waſte ground on a calcareous ſoil the Small Teaſel or Shepherd's Staff ſometimes occurs, but is far from being a general plant. It flowers in Auguſt and September.

Root ſpindle-ſhaped, biennial. Stem 3 or 4 feet high, erect, branched, ſpreading, angular, very rough with aſcending hooked prickles. Leaves oppoſite, ſpreading, on foot-ſtalks, ovate, pointed, ſerrated, accompanied by a pair of ſmall leaflets at their baſe. Flowers white, in round, terminal, long-ſtalked heads. Common calyx of ſeveral equal, reflexed, lanceolate, pointed leaves, fringed with hairs, as are alſo the white ſtraight ſcales that ſeparate the flowers. Corolla funnel-ſhaped, irregularly five-lobed, hairy. Stamina twice as long as the corolla, with purple antheræ. Crown of the ſeeds fringed.

This is too rare a plant to incommode the farmer; neither has it been, on the contrary, applied to any uſeful purpoſe. As an ornamental flower it has little claim to a place in the garden.





July 1, 1821. Published by Sol Sowerby, London.

SCABIOSA ſucciſa.

Devil's-bit Scabious.

TETRANDRIA Monogynia.

GEN. CHAR. *General calyx* of many leaves; partial double, ſuperior. *Receptacle* chaffy or naked.

SPEC. CHAR. Corollas four-cleft, regular. Stem-leaves toothed. Heads of flowers nearly globular.

SYN. Scabioſa ſucciſa. *Linn. Sp. Pl.* 142. *Sm. Fl. Brit.* 170. *Hudſ.* 62. *With.* 183. *Hull.* 33. *Relh.* 59. *Sibth.* 55. *Abbot.* 29. *Curt. Lond. faſc.* 3. *t.* 10.

S. radice ſuccisâ, flore globoſo. *Raii Syn.* 191.

THE ſpecies of Scabious repreſented in the annexed plate occurs very frequently and abundantly in graſſy paſtures that are ſomewhat moiſt, both on low commons and even on hilly ſpots, flowering from Auguſt to October inclusive.

Root perennial, oblong, abruptly bitten off at the lower end. Stem erect, round, leafy, bearing for the moſt part 3 or more flowers. Leaves dark-green, rather coriaceous, harſh and hairy; the radical ones ovate, bluntiſh and entire; a pair or two on the ſtem often remotely toothed; the uppermoſt ſmaller and entire. Flowers dark purpliſh blue (frequently milk-white), in roundiſh heads, ſtanding on long terminal flower-ſtalks, the central one being the moſt conſiderable. The hairs on theſe ſtalks, even below the floral leaves, point upwards, while all thoſe on the main ſtem are reflexed downwards. Calyx hairy. Florets nearly equally four-cleft. Seeds crowned with briſtles.

The origin of the name Devil's-bit is curious; for the old writers tell us, the ſuperſtitious vulgar ſuppoſed the root had been bitten off by the devil, for envy of the benefit its medicinal virtues might render to mankind. Hence alone it ſeems thoſe virtues were preſumed; and in proportion as the devil and his operations are little thought of, they have fallen into oblivion in our unbelieving days.





Mary Crowdy. Published by J. Sowerby, London.

PARIETARIA officinalis.

Pellitory of the Wall.

TETRANDRIA Monogynia.

GEN. CHAR. *Cal.* four-cleft, inferior. *Cor.* none. *Stamina* elaſtic. *Seed* one, clothed with the lengthened calyx.

Some flowers female only, whoſe calyx remains unchanged.

SPEC. CHAR. Leaves lanceolate-ovate, without lateral ribs at the baſe. Segments of the involucrum ovate. Stem aſcending.

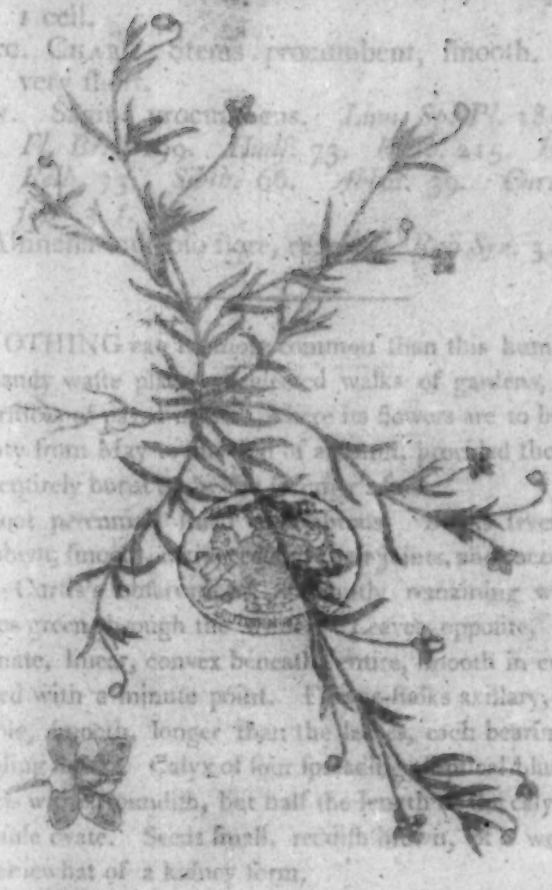
SYN. Parietaria officinalis. *Linn. Sp. Pl.* 1492. *Sm. Fl. Brit.* 189. *Hudſ.* 442. *With.* 201. *Hull.* 226. *Relh.* 378. *Sibth.* 62. *Abbot.* 218. *Curt. Lond. faſc.* 4. *t.* 63.

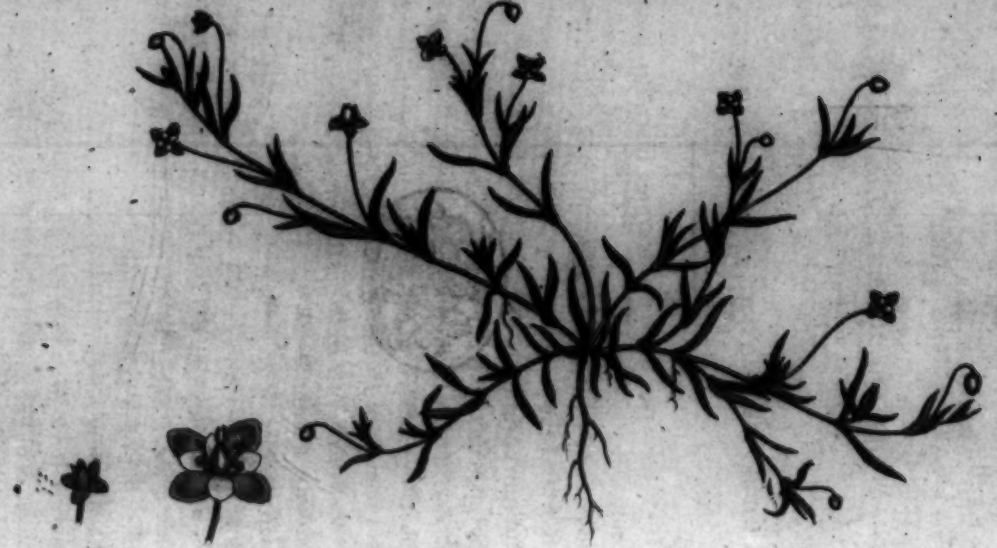
Parietaria. *Raii Syn.* 158.

AN inhabitant of rubbiſh and old walls in ſheltered places; for it is more impatient of cold than many of our wild plants, and its juicy ſtems periſh at the firſt attack of froſt. The flowers are abundant from June to the end of autumn.

Root perennial. Stem buſhy, aſcending, ſpreading, angular, leafy, ſmooth, very ſhining and generally red. Leaves alternate, on ſtalks, of a lengthened or ſharp-ovate figure, obliquely twiſted, entire, a little hairy, pale beneath, the lateral nerves all ſpringing from the main rib conſiderably above the baſe of the leaf, in which this differs from ſome foreign ſpecies. Flowers axillary. Each involucrum cut into 7 ovate ſegments, and containing 3 flowers, all producing fertile ſeeds, though the central one, having no ſtamina, is impregnated by its neighbours. Stamina curiouſly jointed or wrinkled, ſtarting back elaſtically when once touched, and ſo diſcharging the pollen with great force. Stigma pencilled. Seed ovate, ſmooth, ſhining, inveſted with the four-cleft calyx, which in the 2 lateral bloſſoms is remarkably lengthened out after flowering.

This is reckoned among the emollient herbs by writers on the Materia Medica, and indeed is of a mucilaginous quality, though inferior in that reſpect to the Mallow tribe.





New & new Published by Jn. Sowerby London.

SAGINA procumbens.
Procumbent Pearlwort.

TETRANDRIA Tetragynia.

GEN. CHAR. *Cal.* 4-leaved. *Petals* 4. *Capſule* of 1 cell.

SPEC. CHAR. Stems procumbent, ſmooth. Petals very ſhort.

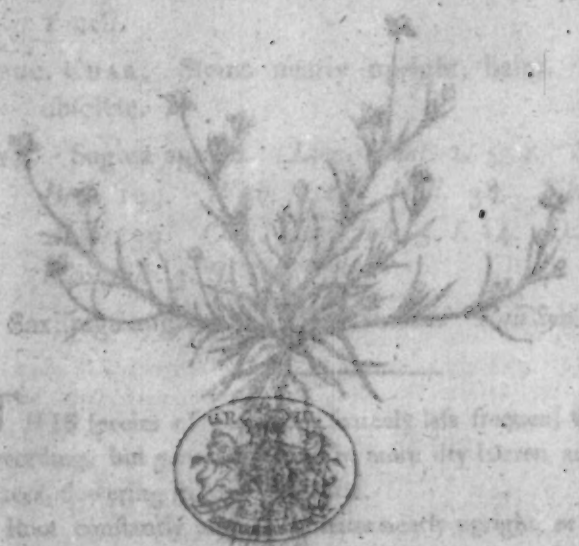
SYN. Sagina procumbens. *Linn. Sp. Pl.* 185. *Sm. Fl. Brit.* 199. *Hudſ.* 73. *With.* 215. *Hull.* 38. *Relh.* 73. *Sibth.* 66. *Abbot.* 39. *Curt. Lond. faſc.* 3. *t.* 12.

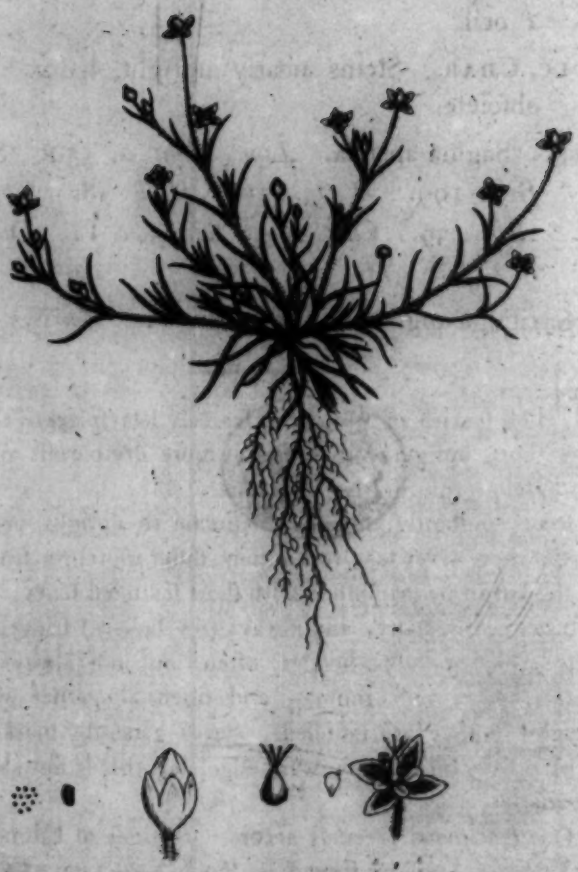
Alſinella muſcoſo flore, repens. *Raii Syn.* 345.

NOTHING can be more common than this humble weed in ſandy waſte places, neglected walks of gardens, and the interſtices of paved courts, where its flowers are to be ſeen in plenty from May to the end of autumn, provided the plant be not entirely burnt up by the ſummer's ſun.

Root perennial, ſmall and fibrous. Stems ſeveral, procumbent, ſmooth, taking root at their joints, and, according to Mr. Curtis's obſervations, conſtantly remaining with their leaves green through the winter. Leaves oppoſite, and even connate, linear, convex beneath, entire, ſmooth in every part, tipped with a minute point. Flower-ſtalks axillary, ſolitary, ſimple, ſmooth, longer than the leaves, each bearing a ſmall nodding flower. Calyx of four ſpreading elliptical blunt leaves. Petals white, roundiſh, but half the length of the calyx, entire. Capſule ovate. Seeds ſmall, reddiſh brown, of a wedge-like, or ſomewhat of a kidney form.

The old name *Sagina*, from *ſagino* to cram or fatten, which appears to have belonged to ſome kind of corn, as Millet, or *Sorghum*, is but ill applied to this little plant, and indeed ſeems to have deſcended to it by chance, having been firſt joined as an adjective to *Alſine* (on which indeed ſeveral animals do feed), and then for want of a better denomination retained for the preſent genus when ſeparated from *Alſine*, *Spergula*, *&c.*





May 1 1791 Published by J. Sowerby London.

SAGINA apetala.

Annual Small-flowered Pearlwort.

TETRANDRIA Tetragynia.

GEN. CHAR. *Cal.* 4-leaved. *Petals* 4. *Capſule* of 1 cell.

SPEC. CHAR. Stems nearly upright, hairy. Petals obſolete.

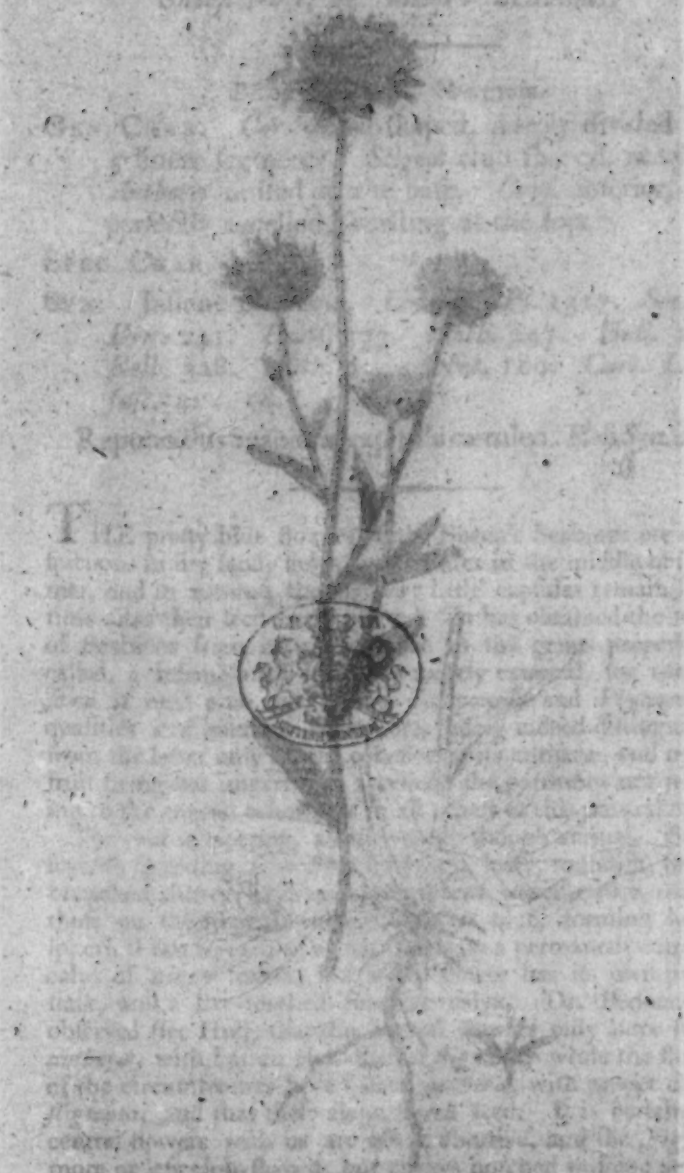
SYN. Sagina apetala. *Linn. Mant.* 2. 559. *Sm. Fl. Brit.* 199. *With.* 216. *Hull.* 38. *Sibth.* 67. *Abbot.* 39. *Curt. Lond. faſc.* 5. *t.* 14. *Dickſ. H. Sicc. faſc.* 3. 6.

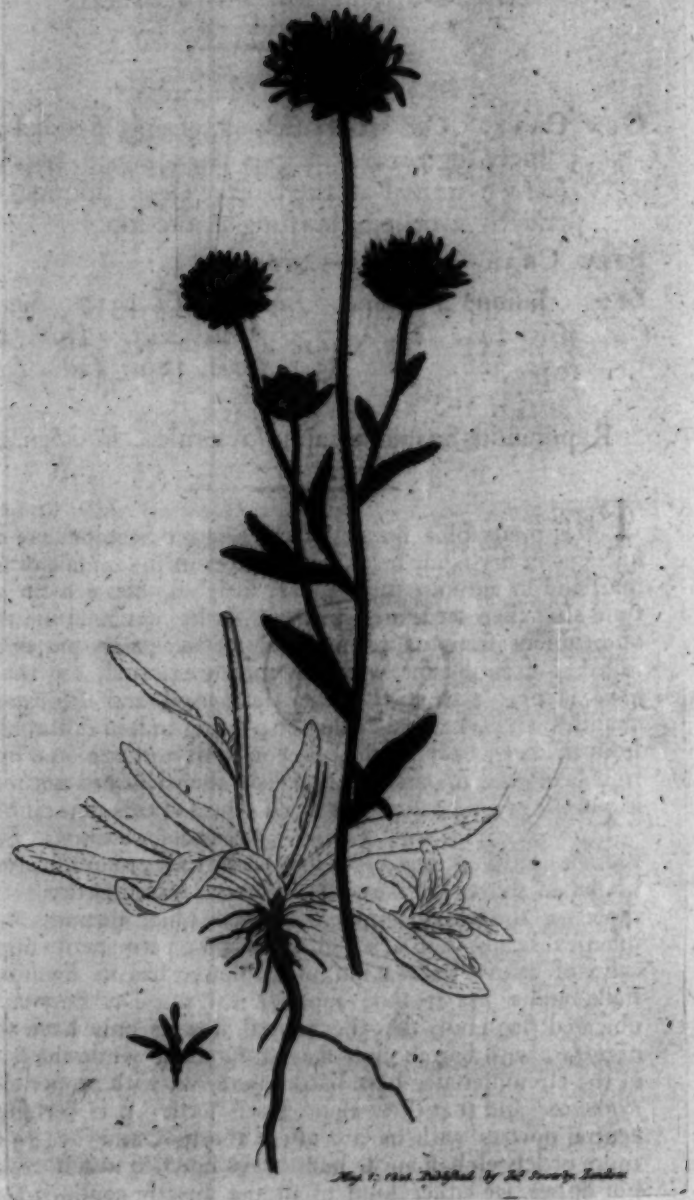
Saxifraga anglica alſinefolia annua. *Raii Syn.* 345.

THIS ſpecies of *Sagina* is ſcarcely leſs frequent than the preceding, but generally found in more dry barren and open places, flowering in May and June.

Root conſtantly annual. Stems nearly upright, or if they ſpread they never take root; they differ moreover from thoſe of the laſt in being clothed with ſhort ſcattered hairs. Leaves alſo frequently hairy, and always (we believe) fringed at the baſe. Flower-ſtalks ſlender, often, but not always, hairy. Petals white, very minute, and often altogether wanting; frequently they are notched. Seeds generally marked with a black line on their outward edge, but this is not abſolutely invariable.

Our ſpecimens preciſely accord with thoſe of Linnæus ſent by Profeſſor Arduino; though we ſhould hardly have recognized his figure (*Spec. Adv. Bot.* 2. *t.* 8. *f.* 1.), which is by no means expreſſive. Linnæus appears not to have been practically acquainted with the differences between theſe two ſpecies, and he certainly confounded *Spergula ſubulata*, *Fl. Brit.* with the former,





May 1, 1816. Published by Sir Smeaton London

JASIONE montana.

Sheep's-bit, or Sheep's Scabious.

PENTANDRIA Monogynia.

GEN. CHAR. *Cor.* wheel-ſhaped, deeply divided into 5 linear ſegments. *Stigma* club-ſhaped, notched. *Antheræ* united at the baſe. *Capſ.* inferior, imperfectly 2-celled, burſting at the top.

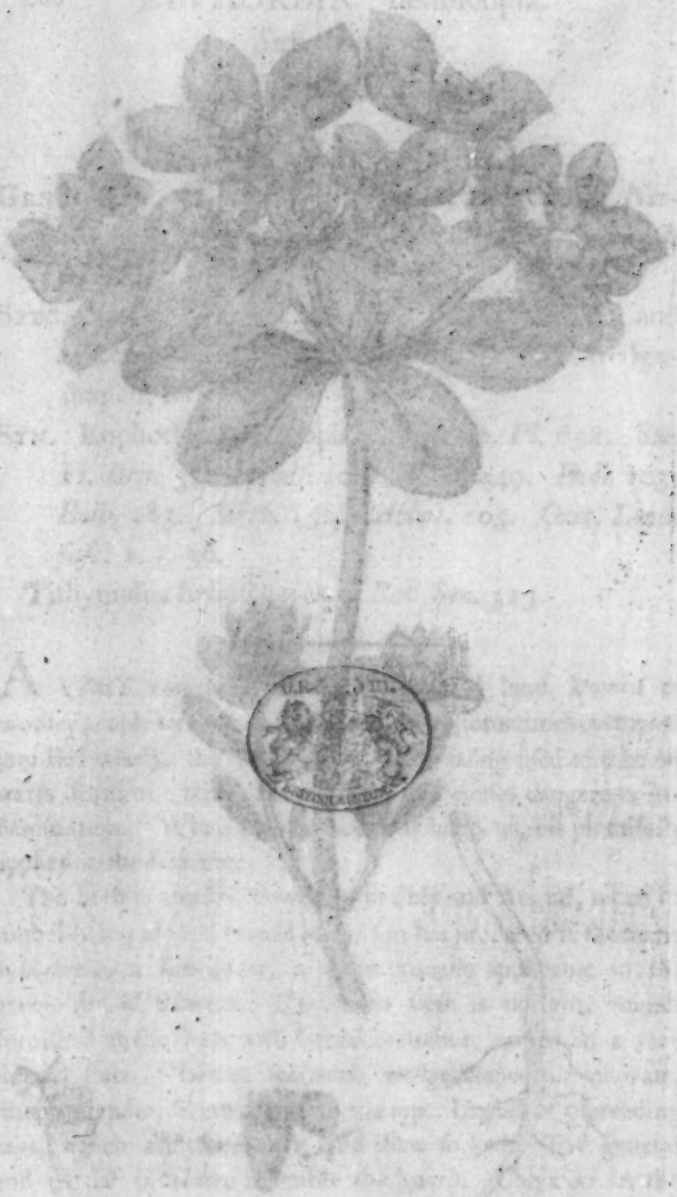
SPEC. CHAR. . . . .

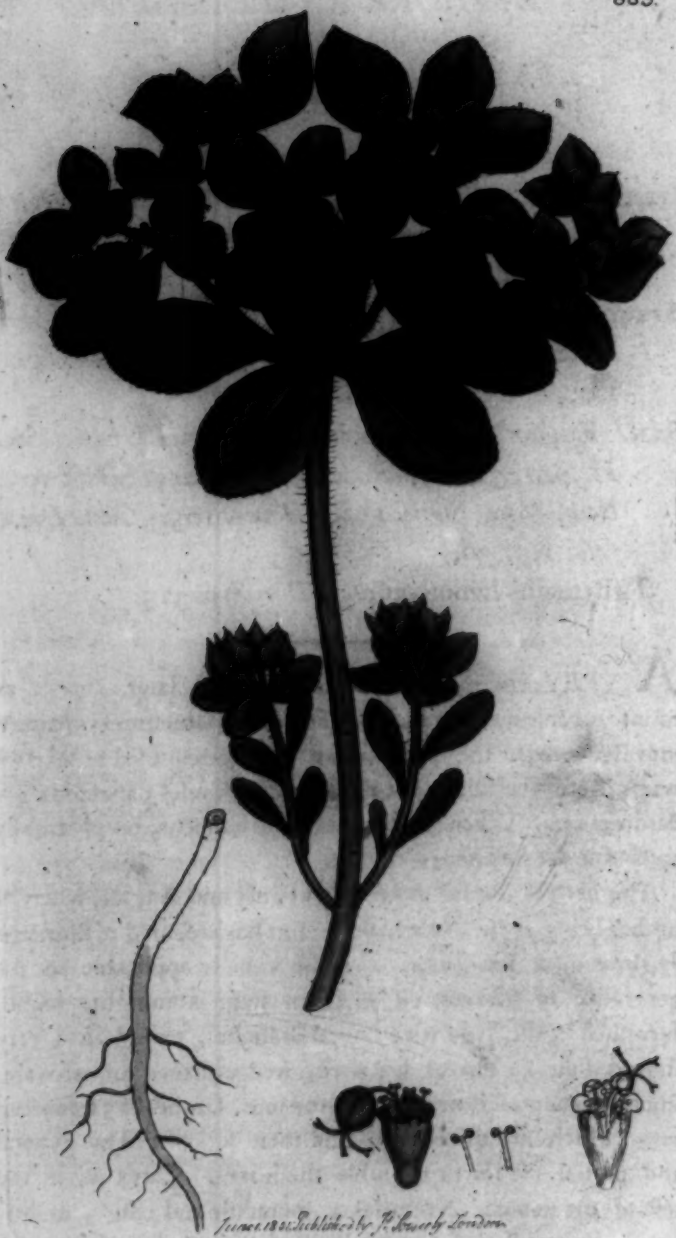
SYN. Jaſione montana. *Linn. Sp. Pl.* 1317. *Sm. Fl. Brit.* 241. *Hudſ.* 377. *With.* 247. *Hull.* 190. *Relh.* 328. *Sibth.* 85. *Abbot.* 189. *Curt. Lond. faſc.* 4. *t.* 58.

Rapunculus Scabioſæ capitulo cæruleo. *Raii Syn.* 278.

THE pretty blue flowers of the Sheep's Scabious are conſpicuous in dry ſandy fields and paſtures in the middle of ſummer, and in autumn the bladdery little capſules remain ſome time after their ſeeds are ſcattered. It has obtained the name of Scabious from its reſemblance to the genus properly ſo called, a reſemblance which is merely external, for the *Jaſione* is next akin to *Lobelia*, *Campanula* and *Phyteuma* in qualities and botanical characters, being indeed diſtinguiſhed from the latter only by the cohesion of its antheræ, and by the fruit being but imperfectly 2-celled, the partitions not reaching to the central column as in all others of this natural order.

The root is tapering, a little woody though annual. Stems ſeveral, ſpreading, ſcarcely a foot high, leafy, roundiſh, rough, branched above. Leaves oblong, blunt, waved, entire, rough; thoſe on the ſtem alternate. Flowers blue, forming hemiſpherical heads, each of which ſtands on a permanent common calyx of many leaves; but every flower has its own partial ſtalk, and a five-toothed ſuperior calyx. Dr. Perſoon has obſerved (ſee Hull) that the central flowers only have fertile *antheræ*, with barren club-ſhaped *ſtigmata*, while the flowers of the circumference have barren *antheræ*, with proper cloven *ſtigmata*, and that theſe alone ripen ſeed. It is certain the central flowers with us are often abortive, and the *ſtigmata* more or leſs club-ſhaped, but always notched in ſome degree, nor do we ſee either kind of ſtigma ſtrictly confined to any particular ſet of flowers.





June 1 1821 Published by J. Sowerby London

EUPHORBIA helioſcopia.
Sun Spurge.

DODECANDRIA Trigynia.

GEN. CHAR. *Cal.* of 1 leaf, inflated, inferior. *Nectaries* 4 or 5, ſtanding on the calyx. *Capſule* ſtalked, 3-lobed.

SPEC. CHAR. Umbel five-cleft, then three-cleft and forked. Partial involucra obovate. Leaves wedge-ſhaped, ſerrated.

SYN. Euphorbia helioſcopia. *Linn. Sp. Pl.* 658. *Sm. Fl. Brit.* 516. *Hudſ.* 209. *With.* 449. *Hull.* 105. *Relh.* 185. *Sibth.* 152. *Abbot.* 105. *Curt. Lond. faſc.* 1. *t.* 36.

Tithymalus helioſcopius. *Raii Syn.* 313.

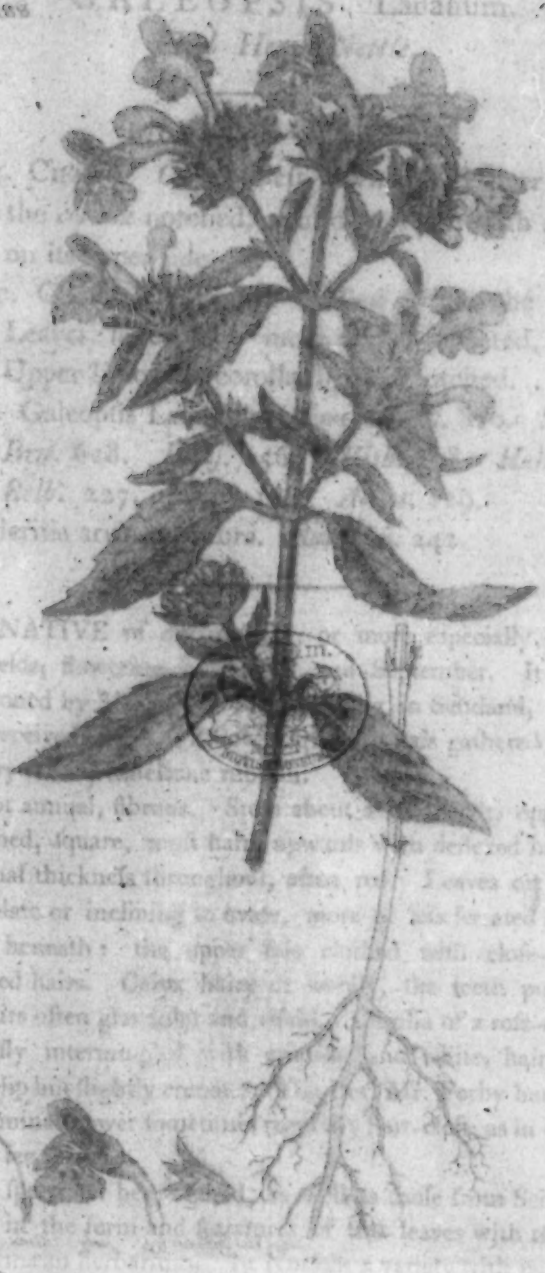
A VERY common weed in cultivated land, known to country people by the name of Wart-wort, (ſometimes corrupted into Rat-weed), the acrid milky juice being uſed to take off warts from the ſkin; but it ſometimes cauſes dangerous inflammation. When ſuch an accident happens, oil plentifully applied is the beſt cure.

The herb is annual, flowering in July and Auguſt, when its umbel being always turned to the ſun has procured it the name *helioſcopia*, a ſun-gazer, a name equally applicable to the generality of flowers. The main ſtem is upright, round, furniſhed at the baſe with lateral branches, except in a very ſtarved ſtate. Leaves ſcattered, wedge-ſhaped or obovate, ſmooth, tender, ſerrated towards the top. Umbel of 5 ſpreading rays, which are three-cleft, and then forked. The general and partial *involucra* reſemble the leaves. Calyx as in the reſt of the genus. Nectaries 4, roundiſh and entire, at firſt green, then yellow. Capſule quite deſtitute of warts or pubeſcence.

EUPHORBIA heliotropia.

A VERY common weed in cultivated land, known in country people by the name of Wart-wort. Sometimes corrupted into Star-wood), the world many have used to take off warts from the flesh; but it possesses more dangerous inflammation. When such an accident happens, oil plentifully applied is the best cure.

The herb is annual, flowering in July and August, when its usual being always turned to the sun has procured it the name Heliotropia, a sun-gazer, a name equally applicable to the generality of flowers. The stem from is upright, round, furnished at the base with several branches, except in a very dwarfed state. Leaves scattered, wedge-shaped or obovate, smooth, broader, serrated towards the top. Umbel of 5 spreading rays, which are three-cleft, and then forked. The general and partial involucra resemble the leaves. Color is in the rest of the genus. Anthers 4, roundish and crimson at first green, then yellow. Capsule quite deflexed of warts or prickles.





May 1. 1801 Published by C. Pursby Jordans

GALEOPSIS Ladanum.

Red Hemp-Nettle.

DIDYNAMIA Gymnoſpermia.

GEN. CHAR. *Cal.* 5-cleft, awned. Upper lip of the *corolla* notched, vaulted: lower with 2 teeth on its upper ſide.

SPEC. CHAR. Stem not ſwelled below the joints. Leaves lanceolate, more or leſs ſerrated, hairy. Upper lip of the corolla ſlightly notched.

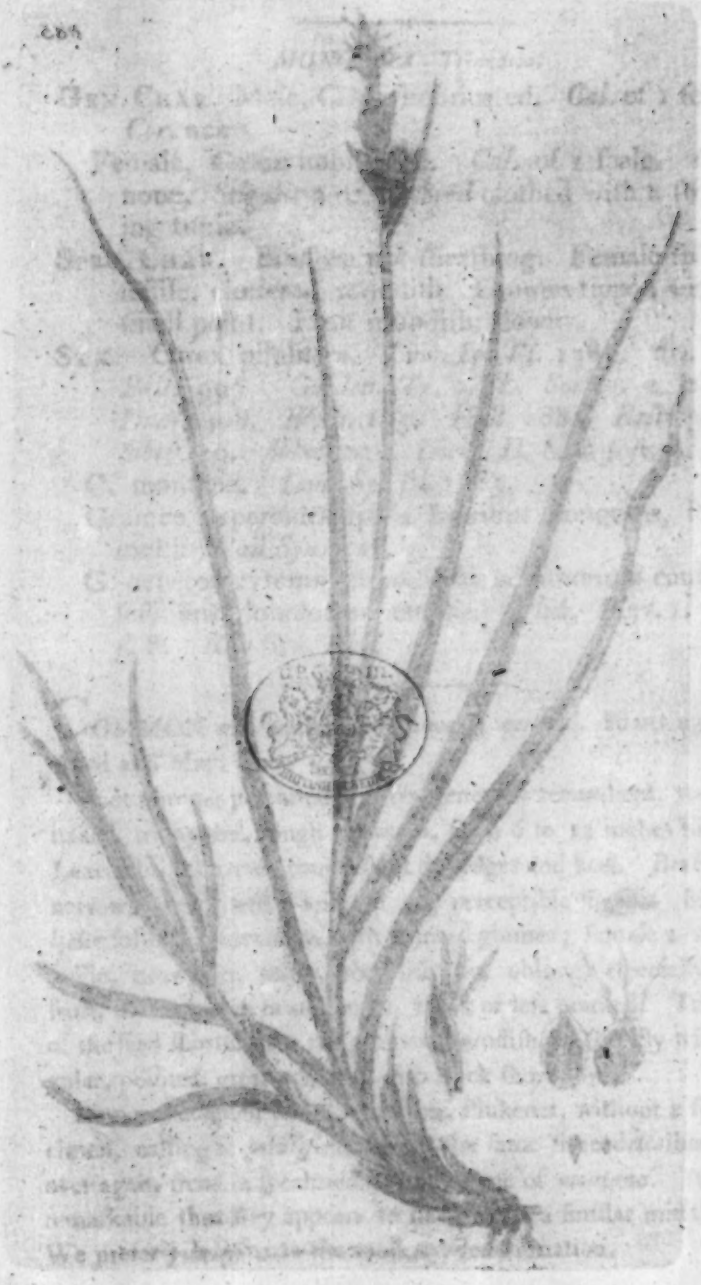
SYN. Galeopſis Ladanum. *Linn. Sp. Pl.* 810. *Sm. Fl. Brit.* 628. *Hudſ.* 256. *With.* 528. *Hull.* 132. *Relh.* 227. *Sibth.* 184. *Abbot.* 129.

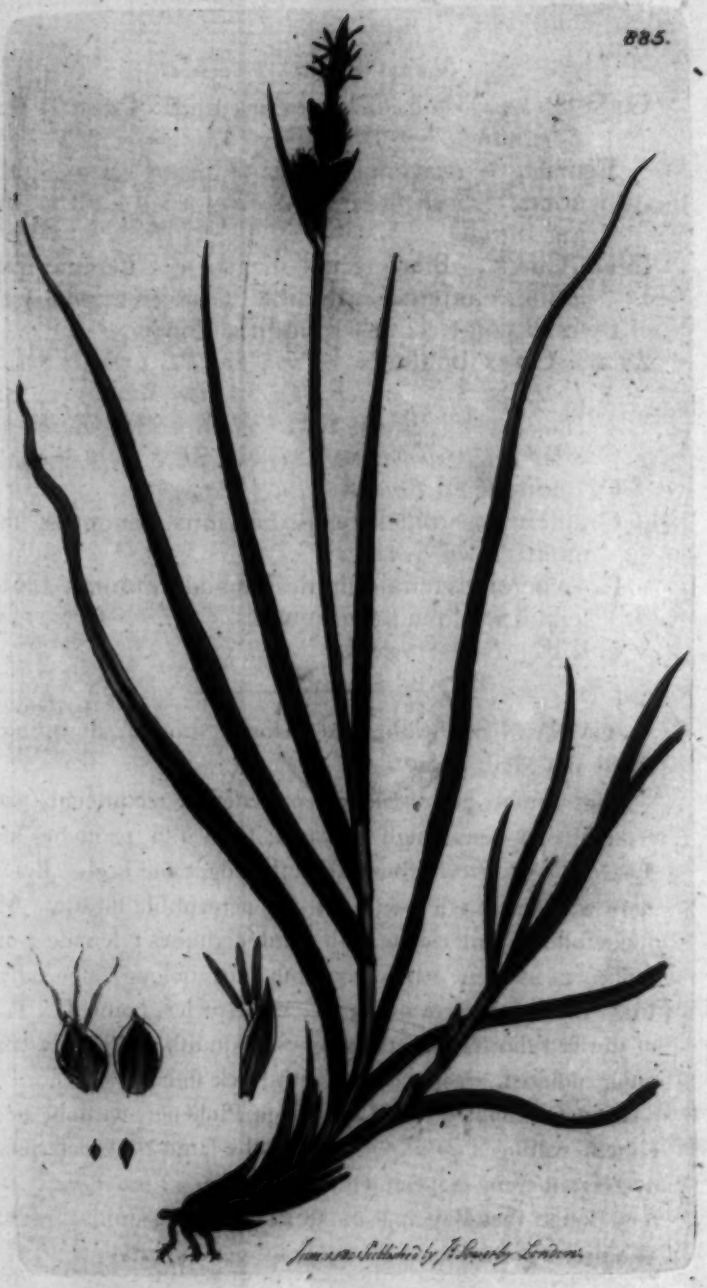
Sideritis arvenſis rubra. *Raii Syn.* 242.

A NATIVE of dry gravelly, or more eſpecially chalky, cornfields, flowering in Auguſt and September. It is not mentioned by Mr. Lightfoot as growing in Scotland, but we have received from A. Bruce, Eſq. ſpecimens gathered in that country on dry limeſtone rubbiſh.

Root annual, fibrous. Stem about a foot high, oppoſitely branched, ſquare, moſt hairy upwards with deflexed hairs, of an equal thickneſs throughout, often red. Leaves on ſtalks, lanceolate or inclining to ovate, more or leſs ſerrated; veins hairy beneath: the upper ſide clothed with cloſe-preſſed ſcattered hairs. Calyx hairy or woolly, the teeth pungent, the hairs often glandular and viſcid. Corolla of a roſe-colour, variouſly intermingled with crimſon and white, hairy, the upper lip but ſlightly crenate. The Rev. Mr. Forby has found the terminal flower ſometimes regularly four-cleft, as in *G. Tetrahit*, ſee *t.* 207.

Our ſpecimen here figured, as well as thoſe from Scotland, agrees in the form and ſerratures of the leaves with thoſe in the Linnæan herbarium. In Norfolk a variety with narrower and almoſt entire leaves is moſt frequent.





Jun. 1. 1791. Published by J. Sowerby, London.

CAREX pilulifera.

Round-headed Carex.

MONOECIA Triandria.

GEN. CHAR. Male, *Catkin* imbricated. *Cal.* of 1 ſcale. *Cor.* none.

Female, *Catkin* imbricated. *Cal.* of 1 ſcale. *Cor.* none. *Stigmas* 2 or 3. *Seed* clothed with a ſwelling tunic.

SPEC. CHAR. Bracteæ not ſheathing. Female ſpikes ſeſſile, cluſtered, roundiſh. Glumes tipped with a ſmall point. Fruit roundiſh, downy.

SYN. Carex pilulifera. *Linn. Sp. Pl.* 1385. *Sm. Fl. Brit.* 995. *Gooden. Tr. of L. Soc. v.* 2. 190. *Hudſ.* 408. *With.* 105. *Hull.* 208. *Relh.* 353. *Sibth.* 29. *Abbot.* 204. *Dickſ. H. Sicc. faſc.* 9. 12.

C. montana. *Linn. Sp. Pl.* 1385.

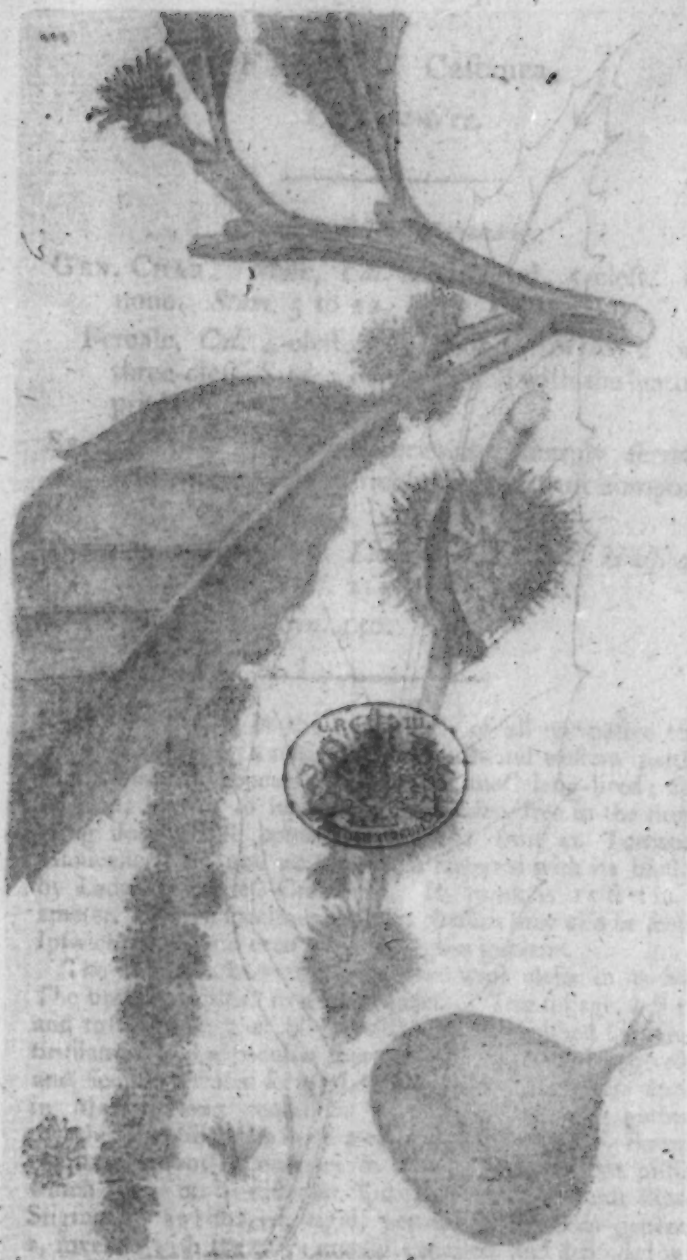
Gramen cyperoides ſpicis brevibus congeſtis, folio molli. *Raii Syn.* 421.

G. cyperoides tenuifolium, ſpicis ad ſummum caulem ſeſſilibus globulorum æmulis. *Pluk. Phyt. t.* 91. *f.* 8. *Raii Syn.* 422.

COMMON on heaths and mooriſh ground, flowering in April and May.

Root fibrous, perennial. Stem generally recumbent, weak, naked, triangular, rough upwards, from 6 to 12 inches high. Leaves bright green, roughiſh at the edges and keel. Bracteæ narrow, ſhort, ſeſſile without any perceptible ſh[illegible]. Male ſpike ſolitary, lanceolate, with pointed glumes; female 2 or 3, ſeſſile, near each other, roundiſh (not oblong) eſpecially in fruit, their glumes ovate, acute, more or leſs pointed. Tunic of the ſeed ſhorter than the glumes, roundiſh, or ſlightly triangular, pointed, green, clothed with thick ſhort down.

Linnæus adopted this *Carex* from Plukenet, without a ſpecimen, calling it *pilulifera*, and at the ſame time deſcribed it over again from a ſpecimen by the name of *montana*. It is remarkable that Ray appears to have made a ſimilar miſtake. We prefer *pilulifera* as the moſt apt denomination.





June 1. 1831. Published by Pat. Lowndes, London.

FAGUS Caſtanea.

Cheſnut-tree.

MONOECIA Polyandria.

GEN. CHAR. Male, *Cal.* bell-ſhaped, 5-cleft. *Cor.* none. *Stam.* 5 to 12.

Female, *Cal.* 4-cleft. *Cor.* none. *Styles* 2 or 3, three-cleft. *Seeds* 2 or 3, inveſted with the leathery prickly calyx.

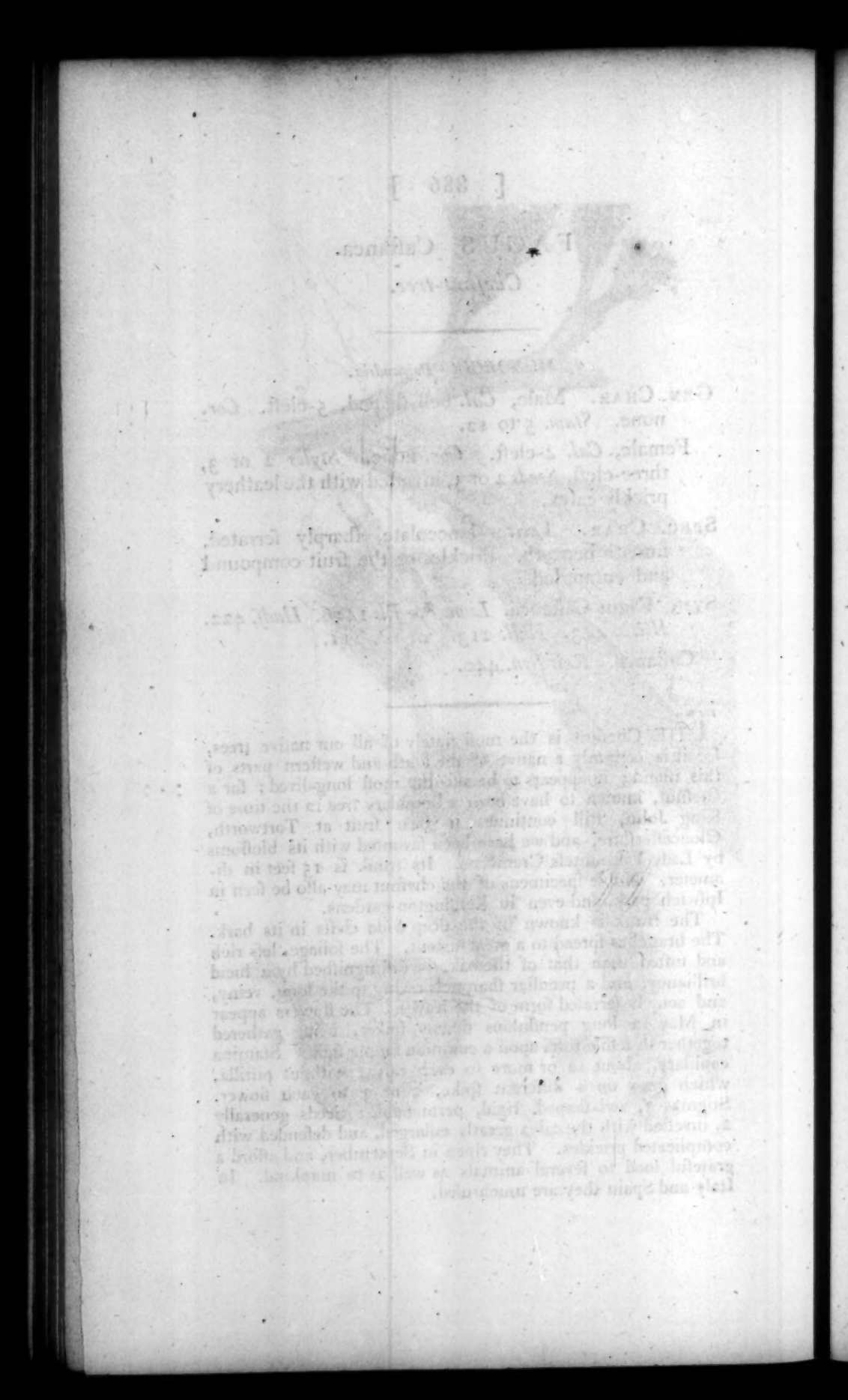
SPEC. CHAR. Leaves lanceolate, ſharply ſerrated, ſmooth beneath. Prickles of the fruit compound and entangled.

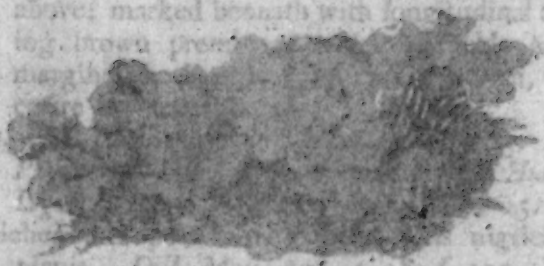
SYN. Fagus Caſtanea. *Linn. Sp. Pl.* 1416. *Hudſ.* 422. *With.* 443. *Hull.* 213. *Abbot.* 211.

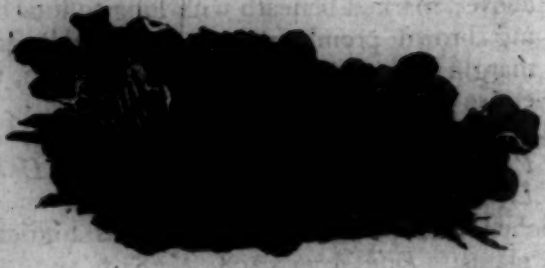
Caſtanea. *Raii Syn.* 440.

THE Cheſnut is the moſt ſtately of all our native trees, for it is certainly a native of the ſouth and weſtern parts of this iſland; it appears to be alſo the moſt long-lived; for a cheſnut, known to have been a boundary tree in the time of King John, ſtill continues to bear fruit at Tortworth, Glouceſterſhire, and we have been favoured with its bloſſoms by Lady Viſcounteſs Cremorne. Its trunk is 15 feet in diameter. Noble ſpecimens of the cheſnut may alſo be ſeen in Ipſwich park, and even in Kenſington gardens.

The trunk is known by the deep wide clefts in its bark. The branches ſpread to a great extent. The foliage, leſs rich and tufted than that of the oak, is diſtinguiſhed by a lucid brilliancy, and a peculiar ſharpneſs owing to the long, veiny, and acutely ſerrated form of the leaves. The flowers appear in May in long pendulous downy ſpikes, being gathered together in ſeſſile tufts upon a common ſimple ſtalk. Stamina capillary, about 12 or more to each calyx, without piſtilla, which grow on a different ſpike, 2 or 3 to each flower. Stigmas 3, awl-ſhaped, rigid, permanent. Seeds generally 2, inveſted with the calyx greatly enlarged, and defended with complicated prickles. They ripen in September, and afford a grateful food to ſeveral animals as well as to mankind. In Italy and Spain they are much uſed.









June 1. 1801. Published by Sol Sowerby, London

LICHEN venoſus.

Green Veiny Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, ſcattered warts.
Female, ſmooth ſhields or tubercles, in which the ſeeds are imbedded.

SPEC. CHAR. Leathery, roundiſh; green and even above; marked beneath with longitudinal branching brown prominent veins. Shields anterior, marginal, horizontal, round, dark-brown, with an entire brown margin.

SYN. Lichen venoſus. *Linn. Sp. Pl.* 1615. *Achar. Prod.* 159. *Hudſ.* 546. *With. v.* 4. 69. *Hull.* 299. *Lightf.* 844. *Dickſ. H. Sicc. faſc.* 10. 25.
Lichenoides parvum vireſcens, peltis nigricantibus planis. *Dill. Muſc.* 208. *t.* 28. *f.* 109.
Peltigera venoſa. *Hoffm. Pl. Lich. t.* 6. *f.* 2.

THIS curious little *Lichen* has been found, though rarely, in ſome parts of Scotland, from whence Mr. Mackay favoured us with ſpecimens; but thoſe in the annexed plate are the firſt known to be of Engliſh growth, having been gathered by Dr. J. Babington cloſe to the town of Ludlow, and they are among the fineſt we have ever ſeen. Dillenius appears to have found the *L. venoſus* but once in his life, in a wood near Gieſen in Heſſe. It grows in moiſt ſhady ſpots, on the ground.

The fronds are ſmall, leathery, aſcending, rooted at their baſe only, dilated upward into a wedge-like or roundiſh form, ſcarcely more than half an inch (rarely an inch) long, ſlightly waved and lobed. Their upper ſurface is perfectly even and ſmooth, of a fine green when freſh, brown or grayiſh when dry; the under ſide downy, white, marked with numerous, longitudinal, prominent (though flat), branching, browniſh veins. Shields ſeveral, marginal, but moſt connected with the upper ſurface, ſeſſile, round, dark, reddiſh brown, flat, ſurrounded with an even margin of the ſame hue, which diſappears as they grow old.





June 1. 1891. Published by Taf Sowerby, London.

LICHEN horizontalis.

Brown Horizontal Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, ſcattered warts.
Female, ſmooth ſhields or tubercles, in which the ſeeds are imbedded.

SPEC. CHAR. Leathery, ſpreading, lobed, poliſhed, glaucous greeniſh brown; beneath covered with a network of brown veins. Shields ſtanding on ſmall lobes, ſeſſile, anterior, horizontal, round, reddiſh, with a pale notched border.

SYN. Lichen horizontalis. *Linn. Mant.* 132. *Achar. Prod.* 160. *Hudſ.* 548. *With. v.* 4. 72. *Hull.* 300. *Lightf.* 849. *Abbot.* 267. *Dickſ. H. Sicc. faſc.* 16. 24.
Lichenoides ſubfuſcum, peltis horizontalibus planis. *Dill. Muſc.* 205. *t.* 28. *f.* 104.

FOUND on moiſt moſſy rocks in woods in the mountainous parts of Great Britain not unfrequently. We received it from the Rev. H. Davies of Aber, North Wales.

It may ſeem wonderful that Linnæus ſhould ever have confounded this with *L. venoſus*, which nevertheleſs appears by his herbarium to have been the caſe, nor did he deſcribe the *horizontalis* till the publication of his *Mantiſſa* in 1767.

The fronds creep on the moiſt earth among moſſes and graſs, and are of no determinate form, but variouſly lobed. Their upper ſurface is a little pitted, but otherwiſe ſmooth and poliſhed, of a glaucous or greeniſh brown, ſometimes ſprinkled with a few mealy warts; the under downy, covered almoſt to the edge with a tolerably regular network of brown broad veins, leaving white oblong ſpaces in their interſtices, and producing here and there a black tufted radicle which fixes itſelf to the ground. Shields generally ſolitarily placed on little elongations of the frond, horizontal, flat, roundiſh, red-brown, ſurrounded with a crenate border of the colour of the leaf on which they grow.

LICHEN farinaceus.

Ragged Mealy Lichen.

CRYPTOGAMIA. Algæ.

Gen. Char. Male, scattered warts. Female, smooth [illegible] tubercles, in which the seeds are imbedded.

Spec. Char. [illegible] leathery, glaucous [illegible] the branches taper [illegible] pale mealy warts. [illegible] pale-buff.

Syn. Lichen [illegible] *Achar. Prod.* 1[illegible] *Hist.* 29[illegible] *Lightf.* [illegible] 245. *Dicks. H. Sicc. fasc.* [illegible] *fol. n.* 87.

Lichenoides segmentis [illegible] marginibus, ad margines verrucosis et pulverulentis. *Dill. Musc.* 171. *t.* 23. *f.* 63.

A VERY common [illegible] branches of most kinds of trees, but [illegible] found, that Dr. Acharius supposes himself [illegible] them. The former [illegible] with respect to the [illegible] fructification gathered in [illegible] by the Rev. H. Bryant. That in [illegible] the Rev. C. Abbot in Clapham [illegible] Mr. Bryant conceived [illegible] Dillenius, Scopoli [illegible] that the *L.* [illegible] the other for the *L.* [illegible] (*Lightfoot* [illegible]), and that he had [illegible] one plant. We [illegible] Acharius, who [illegible] and [illegible] the following plan to distinguish them.

L. [illegible] branched tufts; its [illegible] narrow, [illegible] of a pale [illegible] grey, smooth, except for the [illegible] warts on their edges or [illegible] which [illegible] of this species [illegible] The shields [illegible] young, with no [illegible] of the [illegible]





June 1, 1901. Published by Lovell Reeve & Co., London.

LICHEN farinaceus.

Ragged Mealy Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, ſcattered warts.
Female, ſmooth ſhields or tubercles, in which the ſeeds are imbedded.

SPEC. CHAR. Leafy, much-branched, upright, leathery, glaucous-aſhcoloured, ſmooth, pitted; the branches tapering, ſtudded with lateral, convex, pale, mealy warts. Shields ſcattered, ſtalked, flat, pale-buff.

SYN. Lichen farinaceus. *Linn. Sp. Pl.* 1613. *Achar. Prod.* 177. *Hudſ.* 540. *With. v.* 4. 50. *Hull.* 295. *Lightf.* 833. *Sibth.* 329. *Abbot.* 265. *Dickſ. H. Sicc. faſc.* 17. 23. *Relh.* 432. *ſub n.* 872.

Lichenoides ſegmentis argutioribus, ad margines verrucoſis et pulverulentis. *Dill. Muſc.* 172. *t.* 23. *f.* 63.

A VERY common *Licben* on the branches of moſt kinds of trees, but the ſhields are ſo rarely found, that Dr. Acharius ſuppoſes himſelf the firſt who has deſcribed or even obſerved them. The former claim cannot be diſputed; but, with reſpect to the latter, we have fine ſpecimens in full fructification gathered in Norfolk at leaſt 20 years ago by the Rev. H. Bryant. That in our plate was found in 1799 by the Rev. C. Abbot in Clapham Park Wood, Bedfordſhire. Mr. Bryant conceived his diſcovery only confirmed the ſuppoſition of Dillenius, Scopoli and others, that this *Licben* was the other ſex of *L. calicaris* of Hudſon (*faſtigiatus* of Acharius), and that he had merely met by accident with both ſexes on one plant. We nevertheleſs are rather of the opinion of Dr. Acharius, who keeps them ſeparate, and we ſhall endeavour in this and the following plate to diſtinguiſh them.

L. farinaceus forms ſpreading much-branched tufts; its ſegments vary in breadth, but are generally very narrow, acute, flattiſh, pitted, of a pale glaucous gray, ſmooth, except for the numerous irregular powdery cracks or warts on their edges or ſides, which conſtitute the eſſential diſtinction of this ſpecies, and which in drying become almoſt white. The ſhields are flat, of a very pale buff, ſurrounded when young with an entire border of the colour of the leaf.

LICHEN farinaceus.
Ragged Mealy Lichen.

CRYPTOGAMIA Algæ.

Gen. Char. Male, flattered warts.
Female, smooth thecla or tubercles, in which the seeds are imbedded.

Spec. Char. Leafy, much branched, upright leathery, glaucous-discoloured, smooth, pitted; the branches tapering, studded with lateral convex, pale, mealy warts. Shields scattered, flatted, flat, pale-buff.

Syn. Lichen farinaceus. *Linn. Sp. Pl.* 1613. *Achar. Prod.* 177. *Hull. Brit.* 410. *Fl. Brit.* 2. 560. *Hull.* 295. *Light.* 832. *Swed.* 320. *Relhan.* 265. *Dicks. H. Sicc. fasc.* 17. 25. *With.* 432. *Fab. n.* 872.

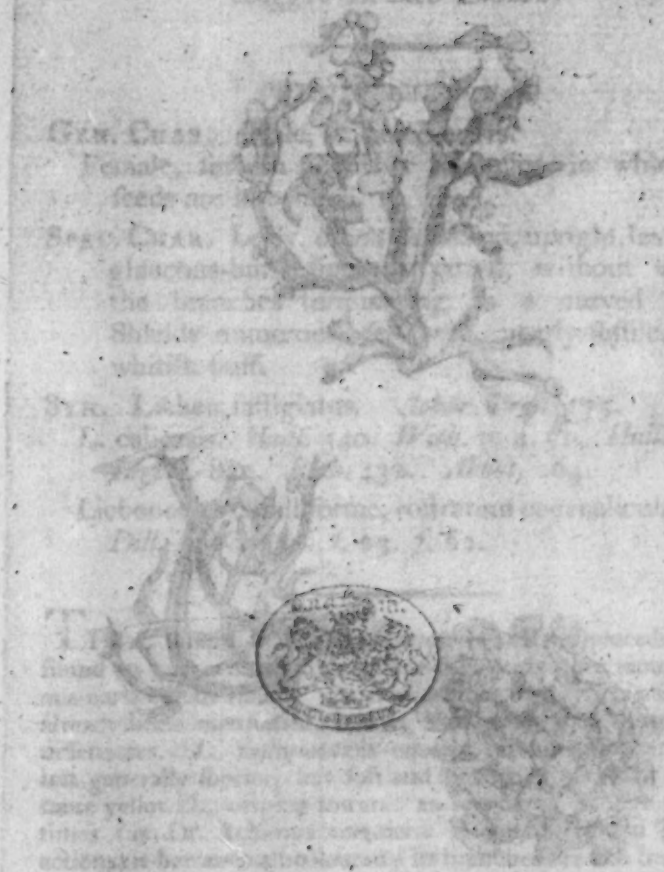
Lichenoides fegmentis angulofibus, ad margines verrucofis et pulverulentis. *Dill. Musc.* 172. t. 23. f. 63.

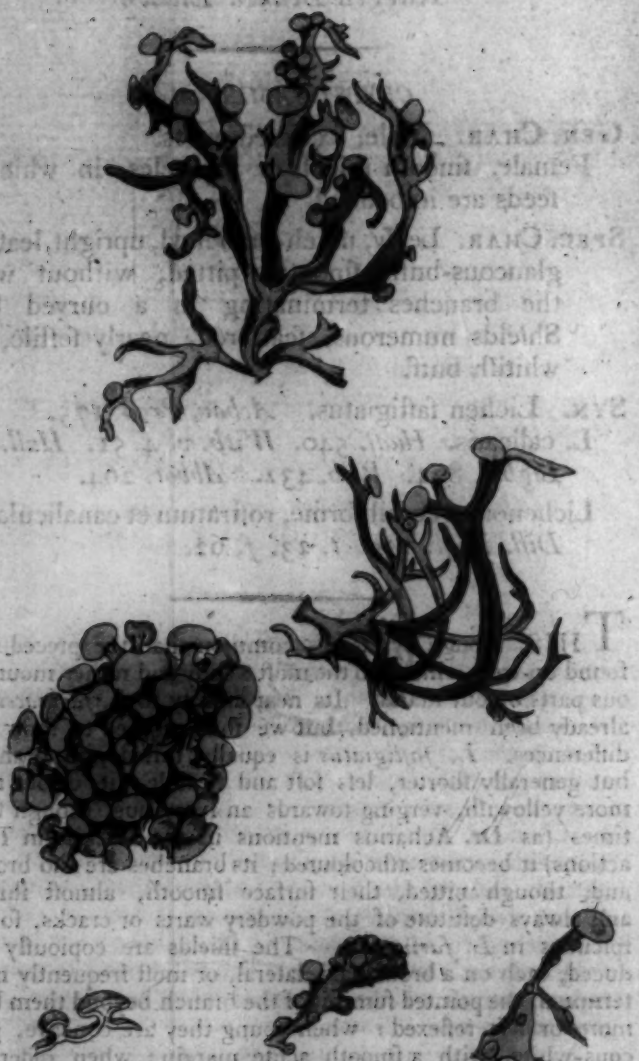
A VERY common Lichen on the branches of moft kinds of trees, but the thecla are to rarely found, that Dr. Acharius fuppofes himfelf the firft who has defcribed or even obferved them. The former claim cannot be difputed: but, with refpect to the latter, we have fine fpecimens in full fructification gathered in Norfolk at leaft 20 years ago by the Rev. H. Bryant. That in our plate was found in 1799 by the Rev. C. Abbot in Clapham Park Wood, Bedfordfhire. Mr. Bryant conceived his difcovery only confirmed the fuppofition of Dillenius, Scopoli and others, that this Lichen was the other fex of L. rudis of Hudfon (*Differs from* Acharius), and that he had merely met by accident with both fexes on one plant. We nevertheless are rather of the opinion of Dr. Acharius, who keeps them feparate, and we fhall endeavour in this and the following plate to diftinguifh them.

L. farinaceus forms fpreading much-branched tufts; its fegments vary in breadth, but are generally very narrow, acute, ftriated, pitted, of a pale glaucous gray, fmooth, except for the numerous irregular powdery cracks or warts on their edges or fides, which conftitute the eſſential diſtinction of this fpecies, and which in drying become almoſt white. The fhields are flat, of a very pale buff, furrounded when young with an entire border of the colour of the leaf.

LICHEN *pilligerus*.

Rugged Reated Liehen.





LICHEN fastigiatus.

Ragged Beaked Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.
Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Leafy, much-branched, upright, leathery, glaucous-buff, smooth, pitted, without warts; the branches terminating in a curved beak. Shields numerous, scattered, nearly sessile, pale whitish buff.

SYN. Lichen fastigiatus. *Achar. Prod.* 175.
L. calicaris. *Hudſ.* 540. *With. v.* 4. 51. *Hull.* 296. *Lightf.* 834. *Relh.* 432. *Abbot.* 264.
Lichenoides coralliforme, rostratum et canaliculatum. *Dill. Musc.* 170. *t.* 23. *f.* 62.

THIS, though by far less common than the preceding, is found on trees, chiefly in the most woody and rather mountainous parts of our island. Its near affinity to *L. farinaceus* has already been mentioned, but we shall proceed to show their differences. *L. fastigiatus* is equally tufted and branched, but generally shorter, less soft and flexible; its colour rather more yellowish, verging towards an ivory hue, though sometimes (as Dr. Acharius mentions in the Stockholm Transactions) it becomes ashcoloured; its branches are also broader, and, though pitted, their surface smooth, almost shining, and always destitute of the powdery warts or cracks, so conspicuous in *L. farinaceus*. The shields are copiously produced, each on a broad base, lateral, or most frequently nearly terminal, the pointed summit of the branch beyond them being more or less reflexed: when young they are concave, glaucous-white, with a smooth acute margin; when older they become flat or convex, and of a pale buff.

We take this opportunity of correcting an oversight in *vol.* 10. *t.* 688, of this work. Dr. Acharius rightly observes that *L. scopulorum* is the real *calicaris* of Linnæus, a fact which escaped us before, but to which we now fully assent. The *calicaris* of British authors is that now before us.

LICHEN fatigiatus.

Ragged Beaded Lichen.

Gen. Char. Male, scattered warts.
Female, smooth shields or tubercles, in which the seeds are imbedded.

Spec. Char. Leafy, much-branched, upright, leathery, glaucous-buff, smooth, pitted, without warts; the branches terminating in a curved beak. Shields numerous, scattered, nearly fertile, pale whitish buff.

Syn. Lichen fatigiatus. Huds. Fred. 175.
L. caliciaris. Pall. 540. With. v. 4. 51. Lin. 296.
Dicks. 834. Pall. 432. Huds. 564.
Lichenoides corallinorme, rotundum et canaliculatum. Dill. Musc. 175. t. 23. f. 62.

THIS, though by far less common than the preceding, is found on trees, chiefly in the most woody and rather mountainous parts of our island. Its near affinity to *L. farinacea* has already been mentioned, but we shall proceed to show their differences. *L. fatigiata* is equally lofted and branched, but generally shorter, less soft and flexible; its colour rather more yellowish, verging towards an ivory hue, though sometimes (as Dr. Acharius mentions in the Stockholm Transactions) it becomes discoloured; its branches are also broader, and, though pitted, their surface smooth, almost shining, and always destitute of the powdery warts or cracks, so conspicuous in *L. farinacea*. The shields are copiously produced, each on a broad side, lateral, or most frequently nearly terminal, the pointed summit of the branch beyond them being more or less reflexed: when young they are concave, glaucous-white, with a smooth acute margin; when older they become flat or convex, and of a pale buff.

We take this opportunity of correcting an oversight in vol. 10. t. 688, of this work. Dr. Acharius rightly observes that *L. farinacea* is the real *caliciaris* of Linnæus, a fact which escaped us before, but to which we now fully adhere. The reference of British authors is that now before us.

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SHERARDIA arvensis.

Blue Sherardia.

TETRANDRIA *Monogynia.*

GEN. CHAR. *Cor.* of 1 petal, funnel-shaped, superior. *Seeds* 2, each crowned with 5 teeth.

SPEC. CHAR. All the leaves whorled. Flowers terminal.

SYN. Sherardia arvensis. *Linn. Sp. Pl.* 149. *Sm. Fl. Brit.* 171. *Hudson, Wint.* 185. *Hull.* 37. *Relh.* 65. *Abbot.* 32. *Curt. Lond. fasc.* 5. t. [illegible] *Dicks. Sicc. fasc.* 15. 1.

[illegible] *arvensis rosea cærulea. Raii Syn.* 225.



THE *Sherardia*, or Little Field Madder, as it has been commonly [illegible] though it has neither the character [illegible] properties of [illegible] except in fallow [illegible] in [illegible] among growing [illegible] more particularly [illegible] gravelly soil, flowering [illegible] there [illegible]

The root is [illegible] generally hairy. Stems [illegible] ding in every direction [illegible] whorled, lanceolate or obovate, pointed [illegible] roughish on the edges and keel, spreading. Flowers in a small [illegible] surrounded with the uppermost whorl, which [illegible] 8 leaves. Calyx superior, of 4 trifid [illegible] length forming a crown to the fruit. Corolla purple-blue [illegible] a slender tube gently tapering to the base, and a regular [illegible] limb. Stamina [illegible] than the lobes of the corolla. Fruit of 2 dry seeds, nearly roughish.

Dillenius [illegible] judgment in making this a distinct genus [illegible] all the other stellate plants, and it is well characterized by the 4 trifid leaves of the calyx, a mark which M. De Jussieu (possibly from an error of the press) seems to have overlooked.



SHERARDIA arvenſis.

Blue Sherardia.

TETRANDRIA Monogynia.

GEN. CHAR. *Cor.* of 1 petal, funnel-ſhaped, ſuperior. *Seeds* 2, each crowned with 3 teeth.

SPEC. CHAR. All the leaves whorled. Flowers terminal.

SYN. Sherardia arvenſis. *Linn. Sp. Pl.* 149. *Sm. Fl. Brit.* 171. *Hudſ.* 66. *With.* 185. *Hull.* 37. *Relh.* 63. *Sibth.* 57. *Abbot.* 32. *Curt. Lond. faſc.* 5. *t.* 13. *Dickſ. H. Sicc. faſc.* 15. 1.

Rubeola arvenſis repens cærulea. *Raii Syn.* 225.

THE *Sherardia*, or Little Field Madder, as it has been commonly called, though it has neither the character nor properties of Madder, is frequent in fallow fields, and indeed even among growing corn, more particularly on a light or gravelly ſoil, flowering throughout the ſummer.

The root is fibrous and annual. Herb generally hairy. Stems ſeveral, branched, leafy, angular, ſpreading in every direction. Leaves about 6 in each whorl, elliptical or obovate, pointed, entire, rougheſt on the edges and keel, ſpreading. Flowers in a ſmall terminal umbel enveloped with the uppermoſt whorl, which generally conſiſts of 7 or 8 leaves. Calyx ſuperior, of 2 trifid permanent leaves, at length forming a crown to the fruit. Corolla purpliſh-blue, with a ſlender tube gently tapering to the baſe, and a regular four-cleft limb. Stamina ſlender, ſhorter than the lobes of the corolla. Fruit of 2 dry ſeeds, moſtly roughiſh.

Dillenius certainly ſhowed his judgment in making this a diſtinct genus from all the other ſtellate plants, and it is well characteriſed by the 2 trifid leaves of the calyx, a mark which M. De Juſſieu (poſſibly from an error of the preſs) ſeems to have overlooked.

SHERARDIA arvensis.

Blue Sherardia.

TETRANDRIA Monogynia.

GEN. CHAR. Cor. of 1 petal, funnel-shaped, superior. Seed 2, each crowned with 3 teeth.

SPEC. CHAR. All the leaves whorled. Flowers terminal.

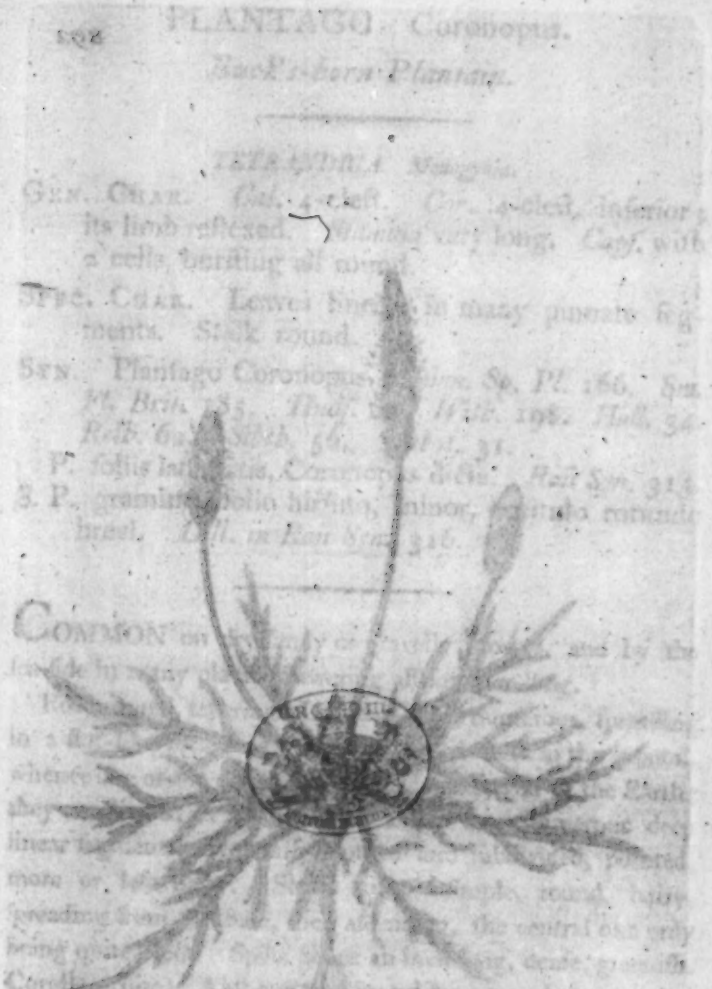
SYN. Sherardia arvensis. Linn. Sp. Pl. 149. Sm. Fl. Brit. 171. Huds. 66. With. 185. Hull. 37. Relh. 63. Sibth. 57. Abbot. 32. Curt. Lond. fasc. 5. t. 13. Dicks. Fl. Sicc. fasc. 1. t. 5. 1.

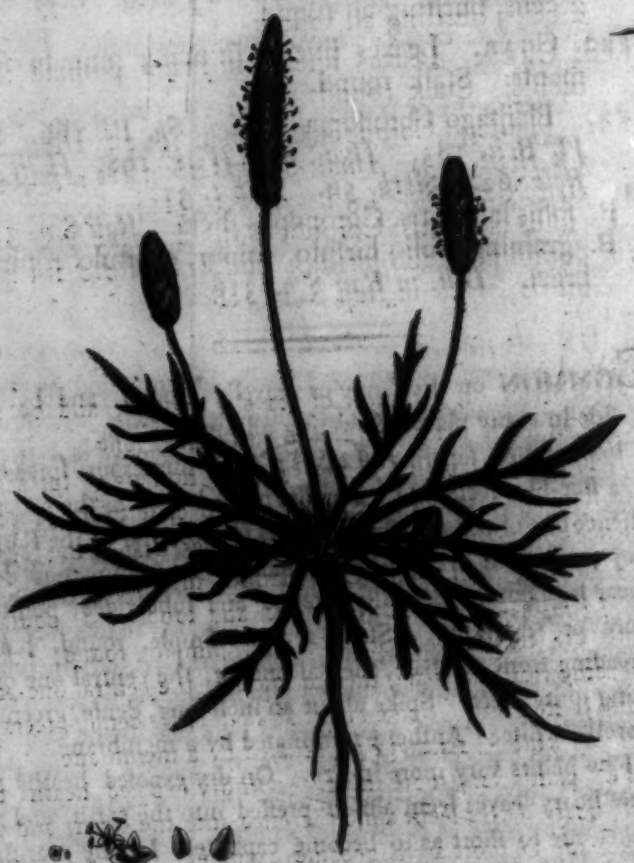
Rubiola arvensis coerulea. Raii Syn. 225.

THE Sherardia, or Little Field Madder, as it has been commonly called, though it has neither the character nor properties of Madder, is frequent in fallow fields, and indeed even among growing corn, more particularly on a light or gravelly soil, flowering throughout the summer.

The root is fibrous and annual. Herb generally hairy. Stems several, branched, leafy, angular, spreading in every direction. Leaves about 6 in each whorl, elliptical or obovate, pointed, entire, roughish on the edges and keel, spreading. Flowers in a small terminal umbel enveloped with the upper most whorl, which generally consists of 7 or 8 leaves. Calyx superior, of a trifid permanent leaves, at length forming a crown to the fruit. Corolla purplish-blue, with a slender tube gently tapering to the brim, and a regular four-cleft limb. Stamens slender, shorter than the lobes of the corolla. Fruit of 2 dry seeds, mostly roughish.

Dillenius certainly followed his judgment in making this a distinct genus from all the other stellate plants, and it is well characterized by the 2 trifid leaves of the calyx; a mark which M. De Jussieu (possibly from an error of the press) seems to have overlooked.





June 1.1787 Published by J.t Sowerby London.

PLANTAGO Coronopus.

Buck's-horn Plantain.

TETRANDRIA Monogynia.

GEN. CHAR. *Cal.* 4-cleft. *Cor.* 4-cleft, inferior; its limb reflexed. *Stamina* very long. *Capſ.* with 2 cells, burſting all round.

SPEC. CHAR. Leaves linear, in many pinnate ſegments. Stalk round.

SYN. Plantago Coronopus. *Linn. Sp. Pl.* 166. *Sm. Fl. Brit.* 185. *Hudſ.* 64. *With.* 198. *Hull.* 34. *Relh.* 62. *Sibth.* 56. *Abbot.* 31.

P. foliis laciniatis, Coronopus dicta. *Raii Syn.* 315.

β. P. gramineo folio hirſuto, minor, capitulo rotundo brevi. *Dill. in Raii Syn.* 316.

COMMON on dry ſandy or gravelly ground, and by the ſea ſide in many places, flowering all ſummer long.

Root annual, tapering. Leaves radical, numerous, ſpreading in a ſtar-like form and generally preſſed cloſe to the ground, whence one of the old names of this ſpecies, Star of the Earth; they are divided in a pinnatifid manner into numerous deep linear ſegments, frequently toothed and ſubdivided, pointed, more or leſs hairy. Stalks ſeveral, ſimple, round, hairy, ſpreading from the baſe, then aſcending, the central one only being quite erect. Spike about an inch long, denſe, greeniſh. Corolla white. Antheræ terminated by a membrane.

Few plants vary more in ſize. On dry expoſed heaths the little hoary leaves ſeem almoſt preſſed into the earth, and the ſpikes are ſo ſhort as to become capitate. In the maritime variety β the leaves are almoſt entire.

We ſhould be tempted to adopt (with Mr. Relhan) the name *coronopifolia* for this ſpecies inſtead of the ſubſtantive *Coronopus*, as another *Coronopus* now ſtands as a genus in the *Fl. Brit.* *p.* 690; but this being the identical plant ſo named by the oldeſt writers, ſuch an innovation is perhaps better avoided.

PLANTAGO Coronopus.

Buck's-horn Plantain.

GEN. CHAR. Cal. 4-cleft. Cor. 4-cleft, inferior; its limb reflexed. Stamens very long. Caps. with 2 cells, bursting all round.

SPEC. CHAR. Leaves linear, in many pinnate segments. Stalk round.

SYN. Plantago Coronopus. Linn. Sp. Pl. 166. Sm. Fl. Brit. 285. Huds. 64. With. 198. Hull. 34. Relh. 62. Sibth. 56. Abbot 31.

P. foliis lacinatis, Coronopus dicta. Raii Syn. 315.

β. P. graminea folio hirsuto, minor, capitulo rotundo brevi. Dill. in Raii Syn. 316.

COMMON on dry sandy or gravelly ground, and by the sea-side in many places, flowering all summer long.

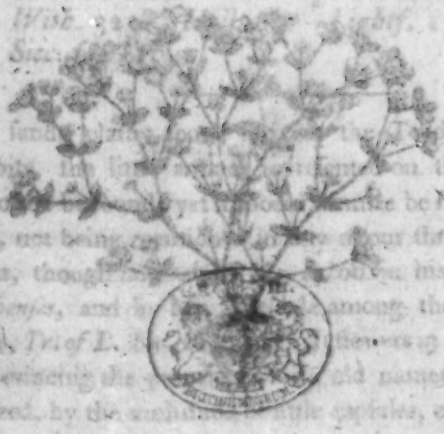
Root annual, tapering. Leaves radical, numerous, spreading in a star-like form and generally pressed close to the ground, whence one of the old names of this species, Star of the Earth; they are divided in a pinnatifid manner into numerous deep linear segments, frequently toothed and subdivided, pointed, more or less hairy. Stalks several, simple, round, hairy, spreading from the base, then ascending, the central one only being quite erect. Spike about an inch long, dense, greenish. Corolla white. Anthers terminated by a membrane.

Few plants vary more in size. On dry exposed beaths the little hoary leaves seem almost pressed into the earth, and the spikes are so short as to become capitate. In the maritime variety β the leaves are almost entire.

We should be tempted to adopt (with Mr. Bellam) the name cornucopiæ for this species instead of the bifidantive Coronopus, as another Coronopus now stands as a genus in the Fl. Brit. p. 690; but this being the identical plant to named by the old writers, such an innovation is perhaps better avoided.

RADIOLA millegrana.

All-seed.



TETRANDRIA *Monogynia.*

GEN. CHAR. *Cal.* in many segments. *Petals* 4. *Capsule* superior, with 8 valves and 8 cells. *Seeds* solitary.

SPEC. CHAR. . . .

SYN. Radiola millegrana . *Sm. Fl. Brit.* 202.

R. vulgaris foliis bifidis. *Dill. in Raii Syn.* 295. t. 15. f. 3.

Linum Radiola. *Linn. Sp. Pl.* 402. *Huds.* 144. *With.* . . . *Relh.* 174. *Dicks. H. Sicc.* . . .

IN fruitful . . . and Ruth. generally inhabits . . . the figure annexed in the . . . the annexed plate may . . . be from a general plant, not being . . . our three principal local Floras, though . . . in his *Flora Perisheriensis*, and . . . among the rarer Yorkshire plants, *Tr. of L.* . . . flowering in July and August, soon entering the . . . old names *Millegrana* and All-seed, by the . . . capsules, each containing 8 seeds, whence it is . . .

The root is . . . stem an inch or two high, repeatedly forked, and throwing altogether a kind of corymb. Leaves opposite, sessile, small, ovate, entire, smooth. Flowers springing laterally from the forks of the stem on little . . . the upper ones . . . being terminal. Calyx 4-cleft, the lobes deeply 2-cleft. . . . petals white, . . . about equal to the corolla. Styles short, with capitate stigmas, permanent, each containing 2 of the cells of the capsule. Seeds solitary, oblong-ovate, polished.

The remarkable smallness of the calyx, and the habit of the plant, not to mention the . . . of number, . . . fully justify the separation of this genus from Linum, in which we follow Linnæus and the genus Portulaca Gerardi.



RADIOLA millegrana.
All-ſeed.

TETRANDRIA Tetragynia.

GEN. CHAR. *Cal.* in many ſegments. *Petals* 4. *Capſule* ſuperior, with 8 valves and 8 cells. *Seeds* ſolitary.

SPEC. CHAR. . . . .

SYN. Radiola millegrana. *Sm. Fl. Brit.* 202.

R. vulgaris ſerpyllifolia. *Dill. in Raii Syn.* 345. *t.* 15. *f.* 3.

Linum Radiola. *Linn. Sp. Pl.* 402. *Hudſ.* 134. *With.* 323. *Hull.* 67. *Lightf.* 174. *Dickſ. H. Sicc. faſc.* 10. 7.

IN ſandy plaſhy ſpots, ſuch as the Toad Ruſh generally inhabits, the little annual repreſented on the annexed plate may often be found; yet it ſhould ſeem to be far from a general plant, not being mentioned in any of our three principal local Floras, though noticed by Mr. Jacob in his *Plantæ Faverſhamienſes*, and by Mr. Teeſdale among the rarer Yorkſhire plants, *Tr. of L. Soc. v.* 2. 107. It flowers in July and Auguſt, ſoon evincing the propriety of its old names *Millegrana* and All-ſeed, by the multitude of little capſules, each containing 8 ſeeds, with which it is laden.

The root is ſmall and fibrous. Stem an inch or two high, repeatedly forked, and forming altogether a kind of *corymbus*. Leaves oppoſite, ſeſſile, ſmall, ovate, entire, ſmooth. Flowers ſpringing ſolitarily from the forks of the ſtem on little ſtalks, the upper ones only being terminal. Calyx 4-cleft, its lobes deeply 3-cleft. Petals white, obovate. Stamina about equal to the corolla. Styles ſhort, with capitate ſtigmas, permanent, each combining 2 of the valves of the capſule. Seeds ſolitary, compreſſed, poliſhed.

The remarkable ſtructure of the calyx, and the habit of the plant, not to mention differences of number, ſurely juſtify the ſeparation of this genus from *Linum*, in which we follow Dillenius and the preſent Profeſſor Gmelin.

RADIOLA millegrana.
All-seed.

TETRANDRIA Tetragynia.

Gen. Char. Cal. in many segments. Petals 4. Capsule superior, with 8 valves and 8 cells. Seeds solitary.

Spec. Char. . . . .

Syn. Radiola millegrana. Sm. Fl. Brit. 202.

R. vulgaris tetraphyllifolia. Dill. in Ray. Syn. 345. t. 15. f. 3.

Linum Radiola. Linn. Sp. Pl. 402. Huds. 134. With. 323. Hull. 67. Light. 274. Dick. Fl. Sitc. Suff. 10. 7.

IN sandy plashy spots, such as the Toad Rush generally inhabits, the little annual represented on the annexed plate may often be found, yet it would seem to be far from a general plant, not being mentioned in any of our three principal local Floras, though noticed by Mr. Jacob in his Flora Faveshamensis, and by Mr. Teesdale among the rarer Yorkshire plants, Tr. of L. Soc. v. 2. 107. It flowers in July and August, soon evincing the propriety of its old name Millegrana and All-seed, by the multitude of little capsules, each containing 8 seeds, with which it is laden.

The root is small and fibrous. Stem an inch or two high, repeatedly-forked, and forming altogether a kind of corymbus. Leaves opposite, setiform, small, ovate, entire, smooth. Flowers springing solitarily from the forks of the stem on little stalks, the upper ones only being terminal. Calyx 4-cleft, its lobes deeply 3-cleft. Petals white, obovate. Stamens about equal to the corolla. Styles short, with capitate stigmas, permanent, each combining a of the valves of the capsule. Seeds solitary, compressed, polished.

The remarkable structure of the calyx, and the habit of the plant, not to mention differences of number, fully justify the separation of this genus from Linum, in which we follow Dillenius and the prudent Professor Gmelin.

889 VIOLA hirta.

Hairy Violet.





Sowerby Exotic Bot. Vol. 2. Pl. 194. Published by J. Sowerby, London.

VIOLA hirta.

Hairy Violet.

PENTANDRIA Monogynia.

GEN. CHAR. *Cal.* 5-leaved, lengthened out at the baſe. *Pet.* 5, irregular; the lowermoſt ſpurred behind. *Antheræ* ſlightly cohering. *Capſ.* ſuperior, of 1 cell, with 3 valves.

SPEC. CHAR. Stem none. Leaves heart-ſhaped, rough, as well as their footſtalks, with hairs. Calyx obtuſe.

SYN. Viola hirta. *Linn. Sp. Pl.* 1324. *Sm. Fl. Brit.* 244. *Hudſ.* 379. *With.* 260. *Hull.* 191. *Relh.* 329. *Sibth.* 83. *Abbot.* 190. *Curt. Lond. faſc.* 1. *t.* 64.

V. martia major, hirſuta, inodora. *Raii Syn.* 365.

THE Hairy Violet, which to a careleſs obſerver differs from the common ſweet one chiefly in having rather paler and ſcentleſs flowers, is notwithſtanding a moſt diſtinct ſpecies from that, and by far leſs frequent. It is only found on a chalk or lime-ſtone ſoil, flowering in April or May. Our ſpecimen grew at Charlton in Kent.

Root perennial, ſomewhat woody. Stem none. Scyons ſhort, ſimple, proſtrate, but not taking root. Leaves on long upright hairy foot-ſtalks, heart-ſhaped, ſerrated, veiny, clothed on both ſides with ſhort denſe hoary hairs. Stipulæ in pairs, radical, lanceolate, toothed. Flower-ſtalks taller than the leaves, ſmooth, bearing *below* their middle (as Mr. Curtis firſt obſerved) a pair of lanceolate ſmooth bracteæ. Calyx ſmooth. Lateral petals marked with a hairy line, as in *V. odorata*. Stamina flat. Antheræ terminating in an orange-coloured membrane, approaching each other, but not united. Capſule roundiſh, hairy, containing ſeveral round ſeeds.





ILLECEBRUM verticillatum.

Whorled Knotgraſs.

PENTANDRIA Monogynia.

GEN. CHAR. *Cal.* of 5 leaves, cartilaginous, inferior. *Cor.* none. *Capſule* of 5 valves with 1 cell. *Seed* 1.

SPEC. CHAR. Flowers whorled, without bracteæ. Stems procumbent.

SYN. Illecebrum verticillatum. *Linn. Sp. Pl.* 298. *Sm. Fl. Brit.* 268. *Hudſ.* 100. *With.* 267. *Hull.* 54. *Dickſ. Dr. Pl.* 57. *H. Sicc. faſc.* 12. 13. Corrigiola. *Raii Syn.* 160.

No part of Britain except Cornwall and Devonſhire has been hitherto known to produce this plant. It grows in moiſt boggy places, flowering in July, and was gathered by Mr. D. Turner and Mr. Sowerby in their weſtern excurſion two years ſince.

Root creeping and perennial. Herb ſmooth. Stems procumbent, a little branched, clothed with numerous pairs of oppoſite, nearly ſeſſile, ovate, entire, rather fleſhy leaves, which are accompanied above their inſertion by membranous lacerated ſtipulæ. Tufts of flowers forming a ſmall whorl grow out of the *axillæ* of almoſt every pair of leaves. The calyx conſiſts of 5 white oblong leaves, thick and fleſhy, hollowed out on the inſide, and each tipped with a curved briſtle. The ſtamina are ſhorter than the calyx, and ſtand on a kind of ring, with 5 reddiſh awl-ſhaped rays, ranged alternately with them on the ſame baſis, which look like petals; but their inſertion, and the analogy of other plants in this Natural Order, rather indicate them to be of the nature of barren filaments. We know not whether they are found in every ſpecies of *Illecebrum*. The germen is ovate, ſtyle very ſhort, ſtigma red, with 5 ſmall notches. Capſule of one cell, but formed of 5 valves, the moſt certain mark of the genus. Seed ſolitary, elliptical, tapering, round, not compreſſed.

ILLECEBRUM verticillatum.

PENTANDRIA Monogynia.

Gen. Char. Cal. of 5 leaves, cartilaginous, inferior.
Cor. none. Capsule of 5 valves with 1 cell. Seed 1.
Spec. Char. Flowers whorled, without bracteas.
Stems procumbent.

Syn. Illecebrum verticillatum. Linn. Sp. Pl. 298.
Sm. Fl. Brit. 268. Huds. 106. With. 267.
Huds. 54. Dick. Dr. Pl. 57. H. Spec. Suffr. 12. N. 13.
Corrigiola. Rani Syn. 160.

No part of Britain except Cornwall and Devonshire has been hitherto known to produce this plant. It grows in moist boggy places, flowering in July, and was gathered by Mr. D. Turner and Mr. Sowerby in their welfare excursion two years since.

Root creeping and perennial. Herb smooth. Stems procumbent, a little branched, clothed with numerous pairs of opposite, nearly sessile, ovate, entire, rather fleshy leaves, which are accompanied above their insertion by membranous lacerated stipulæ. Tufts of flowers forming a small whorl grow out of the axilla of almost every pair of leaves. The calyx consists of 5 white oblong leaves, thick and fleshy, hollowed out on the inside, and each tipped with a curved bristle. The stamina are shorter than the calyx, and stand on a kind of ring, with subulate awl-shaped rays, ranged alternately with them on the same base, which look like petals; but their insertion, and the analogy of other plants in this Natural Order, rather indicate them to be of the nature of barren filamenta. We know not whether they are found in every specimen of Illecebrum. The germen is ovate, style very short, stigma red, with 5 small notches. Capsule of one cell, but formed of 5 valves, the most certain mark of the genus. Seed solitary, elliptical, tapering, round, not compressed.

GENTIANA

Small Alpine Gentian.

PENTANDRIA

GEN. CHAR. Cal. of 1 leaf, tubular, [illegible] with 5 teeth. Corolla of 1 petal, funnel-shaped, with a short tube and 5 [illegible] segments. Nectary of 5 [illegible] glands at the base of the germen. Seeds many.

SPEC. CHAR. Corolla five-cleft, [illegible] Anthers [illegible] of the calyx [illegible]

SYN. Gentiana [illegible]

Linn. Spec. [illegible]

With. 280. *Hudf.* 55. [illegible]

A RUDE dry the [illegible] before the [illegible] Arctic, [illegible] on the Alps [illegible] of perpetual [illegible] so where but on the [illegible] mountains of Scotland [illegible] year whence [illegible] quickly [illegible]



GENTIANA nivalis.

Small Alpine Gentian.

PENTANDRIA Digynia.

GEN. CHAR. *Cor.* of 1 petal, tubular at the baſe, deſtitute of honey-bearing pores. *Capſ.* ſuperior, one-celled, two-valved, with 2 longitudinal receptacles. *Seeds* many.

SPEC. CHAR. Corolla five-cleft, funnel-ſhaped. Angles of the calyx even, acute. Stem many-flowered.

SYN. Gentiana nivalis. *Linn. Sp. Pl.* 322. *Dickſ. Tr. of Linn. Soc. v.* 2. 290. *Sm. Fl. Brit.* 286. *With.* 280. *Hull.* 55. *Fl. Dan. t.* 17.

TRULY does this hardy little plant deſerve the name of *nivalis*, for on the Alps it is only to be found about the limits of perpetual froſt, and in our own country it has been obſerved no where but on the ſummits of one or two of the higheſt mountains of Scotland, which are ſeldom three months in the year without ſnow. It is annual, flowers in July or Auguſt, and quickly ripens its ſeed. We are obliged to Mr. G. Don for wild ſpecimens.

The root is ſlender, tapering, and branching into a few fibres. Stem 2 or 3 inches high, erect, more or leſs branched, ſquare, leafy, bearing from 2 to 6 or 7 flowers; our Britiſh ſpecimens are generally leſs luxuriant than thoſe of Switzerland. Leaves elliptical, entire, the lower ones moſt acute. Flowers ſolitary at the end of each branch, erect, ſlender; their tube green, the limb of a beautiful ultramarine colour, in 5 larger lobes with ſmall cloven ſegments between them. The calyx is tubular, with 5 ſharp, plain, (not waved,) equal angles, and as many teeth. Stamina 5, encloſed within the tube of the corolla. Styles united at their baſe.—The whole herb is ſmooth, as we believe is the caſe with every Gentian.

GENTIANA nivalis.

Small Alpine Gentian.

PENTANDRIA Digynia.

GEN. CHAR. Cor. of 1 petal, tubular at the base, deflitute of honey-bearing pores. Cup superior, one-celled, two-valved, with 2 longitudinal receptacles. Seeds many.

SPEC. CHAR. Corolla five-cleft, funnel-shaped. Angles of the calyx even, acute. Stem many-flowered.

SYN. Gentiana nivalis. Linn. Sp. Pl. 329. Dicks. Fl. of Linn. Soc. v. 2. 290. Sm. Fl. Brit. 285. With. 280. Hall. 55. Fl. Dan. t. 17.

TRULY does this hardy little plant deserve the name of nivalis, for on the Alps it is only to be found about the limits of perpetual froft, and in our own country it has been obferved no where but on the fummits of one or two of the highefl mountains of Scotland, which are feldom three months in the year without fnow. It is annual, flowers in July or Auguft, and quickly ripens its feed. We are obliged to Mr. G. Don for wild fpecimens.

The root is fender, tapering, and branching into a few fibres. Stem 2 or 3 inches high, erect, more or lefs branched, fquare, leafy, bearing from 2 to 6 or 7 flowers; our Britifh fpecimens are generally lefs luxuriant than thofe of Switzerland. Leaves elliptical, entire, the lower ones moft acute. Flowers foliitary at the end of each branch, erect, fender; their tube green, the limb of a beautiful ultramarine colour, in 5 larger lobes with fmall cloven fegments between them. The calyx is tubular, with 5 fharp, plain, (not waved,) equal angles, and as many teeth. Stamina 5, enclofed within the tube of the corolla. Styles united at their bafe.—The whole herb is fmooth, as we believe is the cafe with every Gentian.

SIBBALDIA, procumbens.

Procumbent Sibbaldia.





July 1, 1801. Published by J. Sowerby, London.

SIBBALDIA procumbens.

Procumbent Sibbaldia.

PENTANDRIA Pentagynia.

GEN. CHAR. *Cal.* in 10 ſegments. *Petals* 5, ſtanding on the calyx. *Styles* from the ſide of the germen. *Seeds* 5, in the bottom of the calyx.

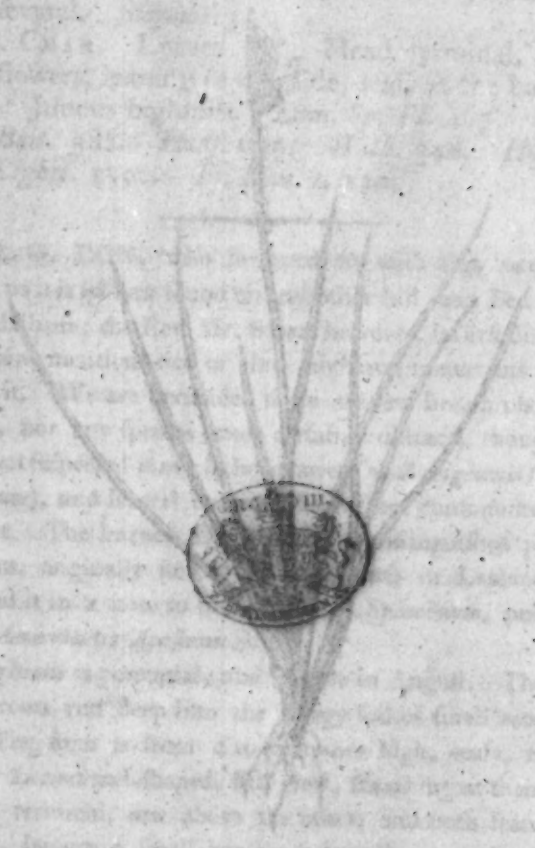
SPEC. CHAR. Leaflets wedgeſhaped, three-toothed.

SYN. Sibbaldia procumbens. *Linn. Sp. Pl.* 406. *Sm. Fl. Brit.* 345. *Hudſ.* 136. *With.* 326. *Hull.* 68. *Lightf.* 175. *Dickſ. H. Sicc. faſc.* 10. 12. Pentaphylloides pumila, foliis ternis ad extremitates trifidis. *Raii Syn.* 256.

THE ſummits of the highland mountains abound with the *Sibbaldia procumbens*, which thrives there in a mouldering micaceous ſoil full as luxuriantly as in any garden, and may be found in flower throughout July. We have gathered it on Ben Lomond. The preſent ſpecimen was ſent by Mr. Mackay.

Roots woody, tufted and perennial. Stems ſhort, ſpreading and procumbent, except ſometimes at their flowering extremities, leafy, round, downy. Leaves on long footſtalks with a pair of oblong acute ſtipulæ, like thoſe of a roſe, united to their baſe; leaflets three, on ſhort partial ſtalks, wedgeſhaped, terminating in 3 large teeth, but otherwiſe entire, a little hairy. Flowers in a ſort of ſmall leafy corymbus, minute and inconſpicuous, with a hairy calyx cut into 10 lobes alternately larger and ſmaller, and bearing 5 little oblong yellow petals and as many ſtamina, placed on a thickened rim, as is proper to the roſaceous order to which this genus belongs. Germen of 5, rarely 10, little round embryos, each bearing a ſmall lateral ſtyle. The ſeeds are dry, ſmall and roundiſh.

Sir Robert Sibbald firſt deſcribed and figured this plant in his *Scotia Illuſtrata* publiſhed in 1684, and it therefore deſervedly bears his name.





July 1. 1801. Published by Jas. Sowerby, London.

JUNCUS biglumis.

Two-flowered Ruſh.

HEXANDRIA Monogynia.

GEN. CHAR. *Cal.* of 6 leaves, permanent. *Cor.* none. *Capſ.* ſuperior, of 3 valves, with 1 or 3 cells. *Seeds* ſeveral. *Stigmas* 3.

SPEC. CHAR. Leaves flat. Head terminal, of two flowers, leaning to one ſide, leafy at the baſe.

SYN. Juncus biglumis. *Linn. Sp. Pl.* 467. *Sm. Fl. Brit.* 382. *Hudſ.* 649. *With.* 348. *Hull.* 76. *Lightf.* 1100. *Fl. Dan. t.* 120.

MR. G. DON, who favoured us with this rare plant, aſſures us it is ſeldom found on any other hill than Ben Lawers in Bredalbane; the Rev. Mr. Stuart however, its firſt diſcoverer in Britain, mentions two or three highland mountains as producing it. We are perſuaded there are few Britiſh plants leſs known, nor any ſpecies more certainly diſtinct, though Mr. Lightfoot ſuſpected it might be a variety of *J. triglumis* (ſee the next plate), and ſeveral botaniſts have ſince confounded them together. The learned Dr. Montin, a diſtinguiſhed pupil of Linnæus, originally found the *J. biglumis* in Lapland, and deſcribed it in a note to his treatiſe on *Splachnum*, publiſhed in the *Amœnitates Academicæ*.

J. biglumis is perennial, and flowers in Auguſt. The little fibrous roots run deep into the boggy ſoil of ſmall mountain rills. The ſtem is from 2 to 4 inches high, leafy, ſimple, round. Leaves awl-ſhaped, flat, erect, ſheathing at their baſe. Flowers terminal, one above the other, and both leaning to one ſide, having a ſmall bractea below them, and a longer upright leafy one ſurmounting the uppermoſt flower. Calyx-leaves lanceolate, equal, keeled, variegated with green and a dark chocolate hue. Stamina a little longer than the calyx, as is alſo the capſule when ripe, though the germen is not above half ſo long.

One flower being placed above the other decidedly marks this ſpecies.

JUNCUS triglumis.

Three-flowered Rush.

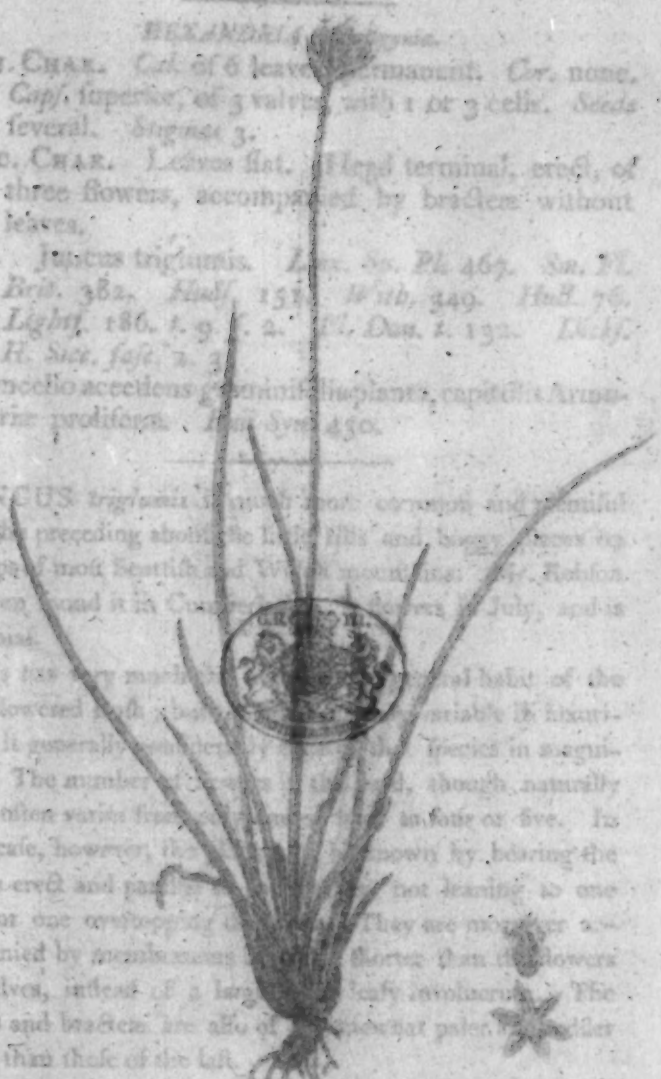
HEXANDRIA [illegible].

GEN. CHAR. *Cal.* of 6 leaves, permanent. *Cor.* none. *Caps.* superior, of 3 valves, with 1 or 3 cells. *Seeds* several. *Stigmas* 3.

SPEC. CHAR. Leaves flat. Head terminal, erect, of three flowers, accompanied by bracteæ without leaves.

SYN. Juncus triglumis. *Linn. Sp. Pl.* 467. *Sm. Fl. Brit.* 382. *Hudf.* 151. *With.* 349. *Hudf.* 76. *Light.* 186. t. 9. f. 2. *Fl. Dan.* t. 132. *Lachf. H. Sicc. fasc.* 2. 3.

Juncello accedens, gramini fimilis planta, capitulis Armeriæ prolifera. *Raii Syn.* 450.



JUNCUS *triglumis* [illegible] corrupt and plentiful than the preceding about the [illegible] and bogs near the tops of most Scottish and Welsh mountains. Robson has even found it in Cumberland. It flowers in July, and is perennial.

This has been mistaken [illegible] habit of the Two-flowered Rush, [illegible] variable in luxuriance, it generally [illegible] species in a singular mode. The number [illegible] though naturally three, often varies from [illegible] to five or six. In every case, however, [illegible] known by bearing the flowers erect and [illegible] not leaning to one side, nor one overtopping [illegible] They are moreover accompanied by membranaceous [illegible] shorter than the flowers themselves, instead of a large [illegible] leafy involucrum. The glumes and bracteæ are also [illegible] paler and smaller than those of the last.

Dillenius could [illegible] this Rush when, in his edition of Ray's Synopsis, he [illegible] the same with *Scirpus caspitosus*; nor was [illegible] happy, when, in his 1st edition, he took the plant of Ray for the *Scirpus ferrugineus* of Linnæus.



July 1. 1801. Published by Jas Sowerby London.

JUNCUS triglumis.
Three-flowered Ruſh.

HEXANDRIA Monogynia.

GEN. CHAR. *Cal.* of 6 leaves, permanent. *Cor.* none. *Capſ.* ſuperior, of 3 valves, with 1 or 3 cells. *Seeds* ſeveral. *Stigmas* 3.

SPEC. CHAR. Leaves flat. Head terminal, erect, of three flowers, accompanied by bracteæ without leaves.

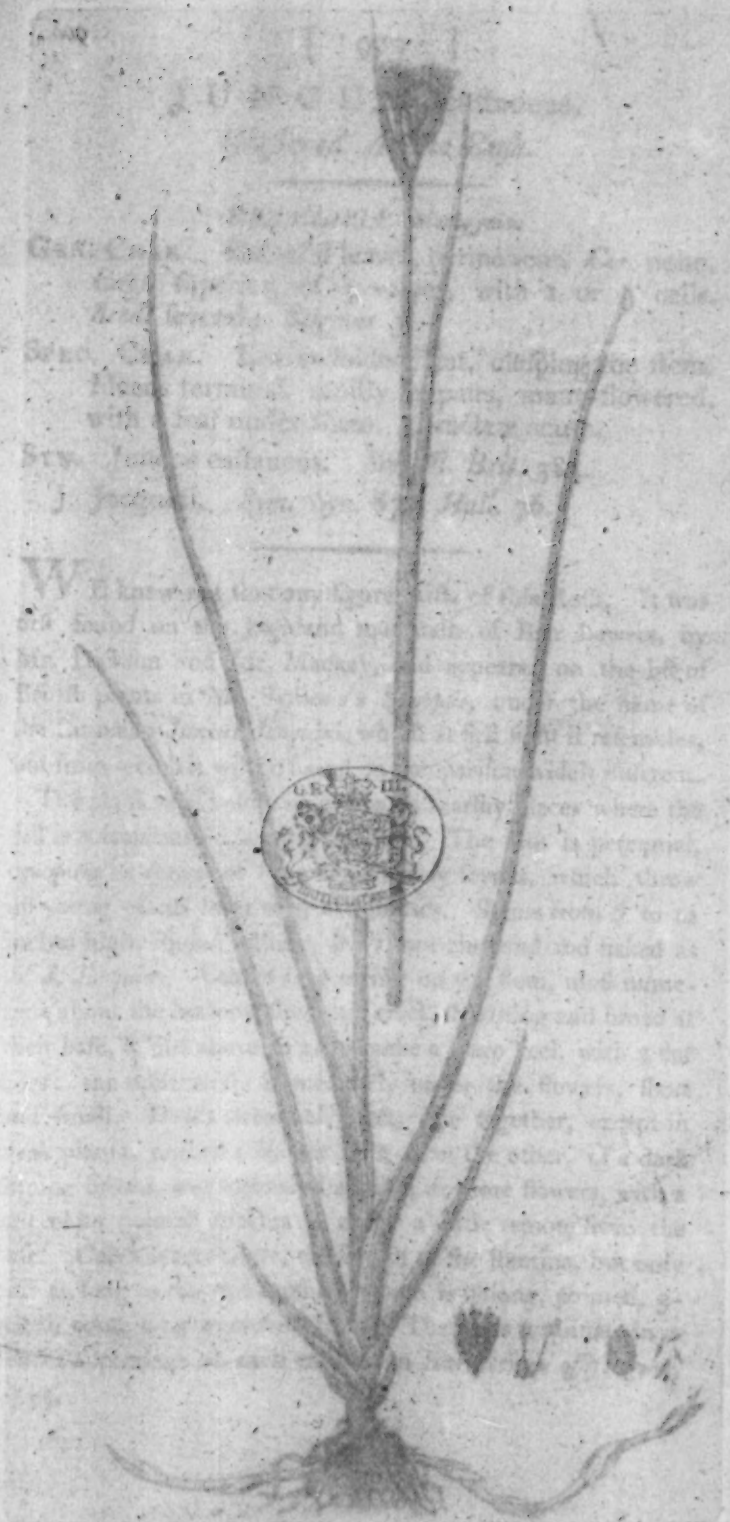
SYN. Juncus triglumis. *Linn. Sp. Pl.* 467. *Sm. Fl. Brit.* 382. *Hudſ.* 151. *With.* 349. *Hull.* 76. *Lightf.* 186. *t.* 9. *f.* 2. *Fl. Dan. t.* 132. *Dickſ. H. Sicc. faſc.* 2. 3.

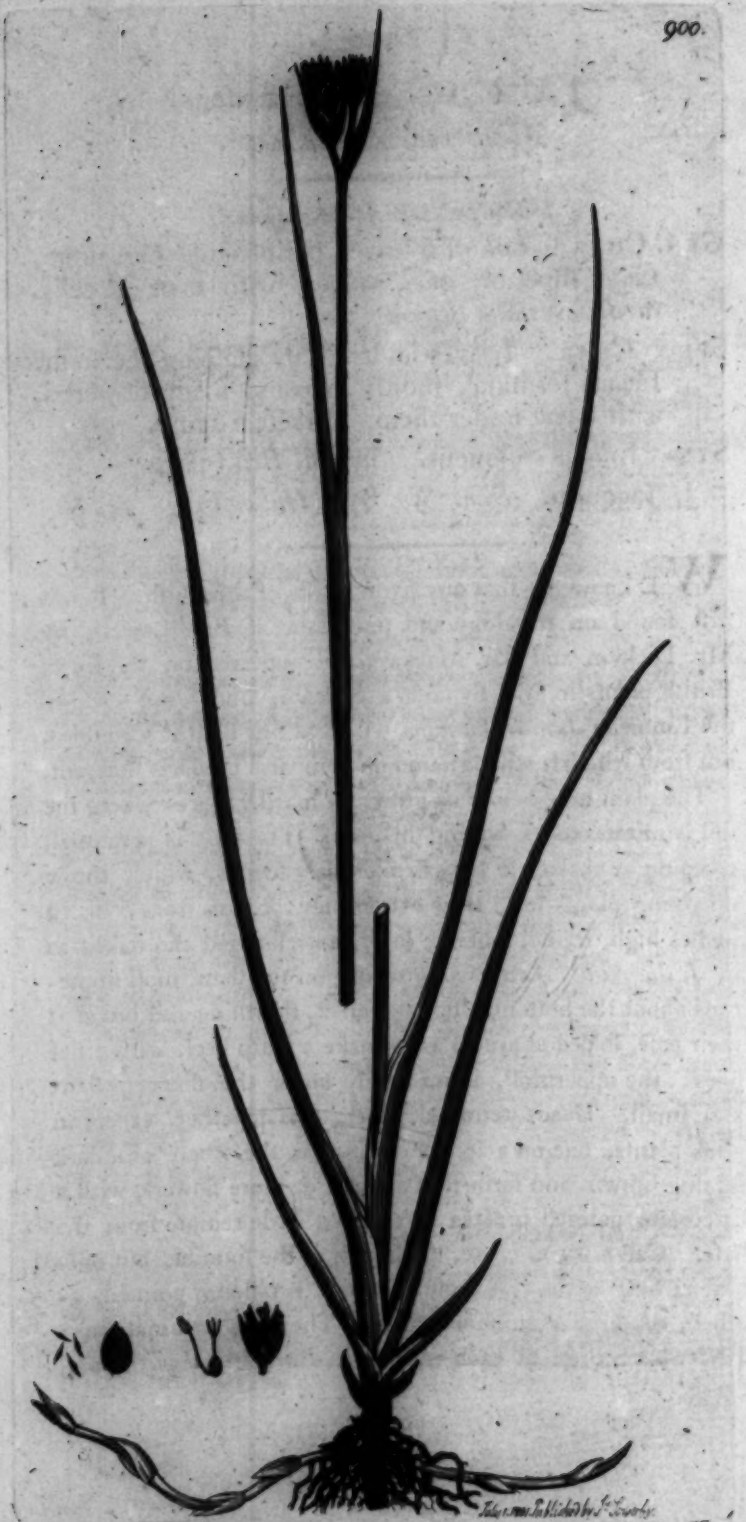
Juncello accedens graminifolia planta, capitulis Armeriæ proliferæ. *Raii Syn.* 430.

JUNCUS *triglumis* is much more common and plentiful than the preceding about the little rills and boggy places on the tops of moſt Scottiſh and Welch mountains. Mr. Robſon has even found it in Cumberland. It flowers in July, and is perennial.

This has very much the herbage and general habit of the Two-flowered Ruſh; but though extremely variable in luxuriance, it generally conſiderably exceeds that ſpecies in magnitude. The number of flowers in the head, though naturally three, often varies from only one or two, to four or five. In every caſe, however, the plant is to be known by bearing the flowers erect and parallel to each other, not leaning to one ſide, nor one overtopping the other. They are moreover accompanied by membranous bracteæ, ſhorter than the flowers themſelves, inſtead of a large erect leafy involucrum. The glumes and bracteæ are alſo of a ſomewhat paler and redder brown than thoſe of the laſt.

Dillenius could ſurely never have ſeen this Ruſh when, in his edition of Ray's *Synopſis*, he ſuppoſed it the ſame with *Scirpus cæſpitoſus*; nor was Mr. Hudſon's conjecture more happy, when, in his 1ſt edition, he took the plant of Ray for the *Schœnus ferrugineus* of Linnæus.





JUNCUS caſtaneus.

Cluſtered Alpine Ruſh.

HEXANDRIA Monogynia:

GEN. CHAR. *Cal.* of 6 leaves, permanent. *Cor.* none. *Capſ.* ſuperior, of 3 valves, with 1 or 3 cells. *Seeds* ſeveral. *Stigmas* 3.

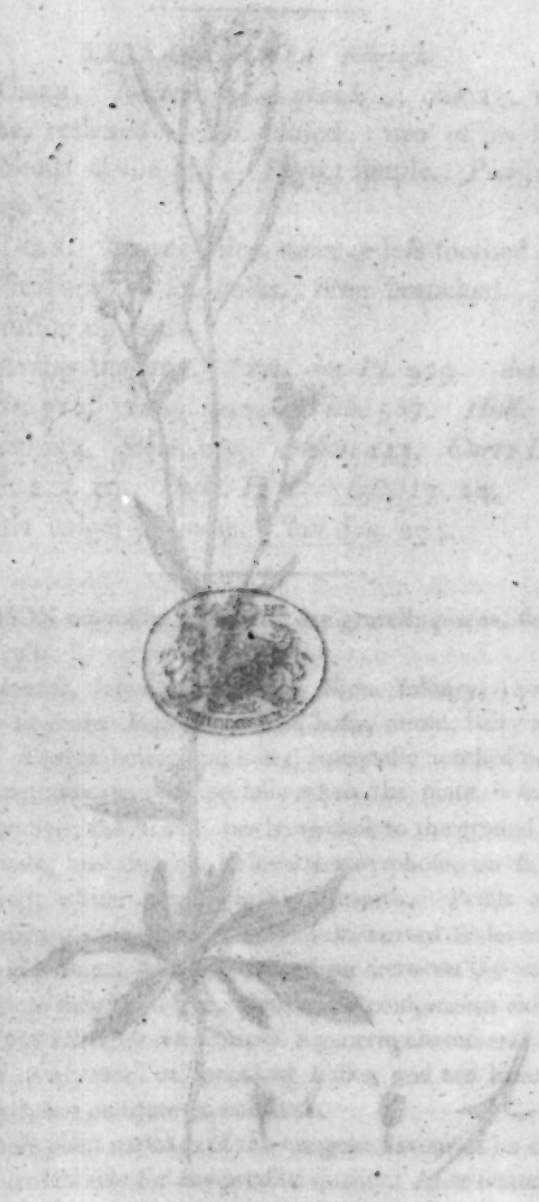
SPEC. CHAR. Leaves folded, flat, claſping the ſtem. Heads terminal, moſtly in pairs, many-flowered, with a leaf under them. Bracteæ acute.

SYN. Juncus caſtaneus. *Sm. Fl. Brit.* 385.

J. Jacquini. *Sym. Syn.* 87. *Hull.* 76.

WE know not that any figure exiſts of this Ruſh. It was firſt found on the highland mountain of Ben Lawers, by Mr. Dickſon and Mr. Mackay, and appeared on the liſt of Britiſh plants in Mr. Symons's *Synopſis*, under the name of the Linnæan *Juncus Jacquini*, which at firſt ſight it reſembles, but from which it will be found on compariſon widely different.

The plant now before us grows in marſhy places where the ſoil is micaceous, flowering in July. The root is perennial, creeping by means of long ſlender ſcaly ſcyons, which throw up young plants from their extremities. Stems from 6 to 12 inches high, round, ſolitary, leafy, not cluſtered and naked as in *J. Jacquini*. Leaves all growing on the ſtem, moſt numerous about the bottom, alternate, erect, ſheathing and broad at their baſe, folded above ſo as to make a ſharp keel, with 2 flat ſides: the uppermoſt, immediately under the flowers, ſhort and ſmall. Heads terminal, erect, two together, except in weak plants, one on a longer ſtalk than the other, of a dark ſhining brown, and formed of about 4 or more flowers, with a lanceolate pointed bractea to each, a little remote from the baſe. Calyx-leaves acute, the length of the ſtamina, but only half as long as the ripe capſule, which is oblong, pointed, 3-celled, containing nnmerous ſeeds. The ſeeds terminate in a ſlender appendage at each end, as in *Narthecium oſſifragum*, *t.* 535.





July 1. 1801. Published by J.r Sowerby London.

ARABIS thaliana.

Common Wall-Creſs.

TETRADYNAMIA Siliquoſa.

GEN. CHAR. *Nectariferous glands* 4, oblong, ſcale-like, reflexed. *Cal.* cloſed; two of its leaves gibbous at the baſe. *Stigma* ſimple. *Pod* linear, rugoſe.

SPEC. CHAR. Leaves hairy, more or leſs toothed; the radical ones on footſtalks. Stem branched. Pods pointing upwards.

SYN. Arabis thaliana. *Linn. Sp. Pl.* 929. *Sm. Fl. Brit.* 712. *Hudſ.* 292. *With.* 587. *Hull.* 147. *Relh.* 254. *Sibth.* 205. *Abbot.* 145. *Curt. Lond. faſc.* 2. *t.* 49. *Dickſ. H. Sicc. faſc.* 17. 12.

Turritis vulgaris ramoſa. *Raii Syn.* 294.

COMMON on walls, roofs, and dry gravelly places, flowering in April.

Root annual, tapering, fibrous. Stem ſolitary, upright, from 2 to 10 inches high, branched, leafy, round, hairy about the baſe. Leaves lanceolate, hairy, unequally toothed or ſerrated, ſometimes entire, eſpecially when the plant is ſtarved and diminutive; the radical ones lying cloſe to the ground; the reſt alternate, and ſmaller. Flowers corymboſe, on ſlender ſtalks, ſmall, white. Calyx briſtly upwards. Petals erect. Nectariferous glands minute, like little curved ſcales at the baſe of the ſtamina, but not projecting between the calyx-leaves, nor do they ſeem to us conſtant or conſpicuous enough in this or any other *Arabis* to make a generic character. The pods ſtand nearly erect on ſpreading ſtalks, and are linear, a little rugged, but deſtitute of hairineſs.

The whole plant partakes of the pungent flavour of its claſs, but is not remarkable for any peculiar quality. After ſcattering its ſeeds in May it ſoon withers and diſappears.

ARABIS thaliana.

Common Wall-Cress.

TETRADYNAMIA Siliquosa.

Gen. Char. Nectary of four glands, oblong, scale-like, reflexed. Cal. closed; two of its leaves gibbous at the base. Silique linear, simple. Pod linear, rugose.

Spec. Char. Leaves hairy, more or less toothed; the radical ones on footstalks. Stem branched. Pods pointing upwards.

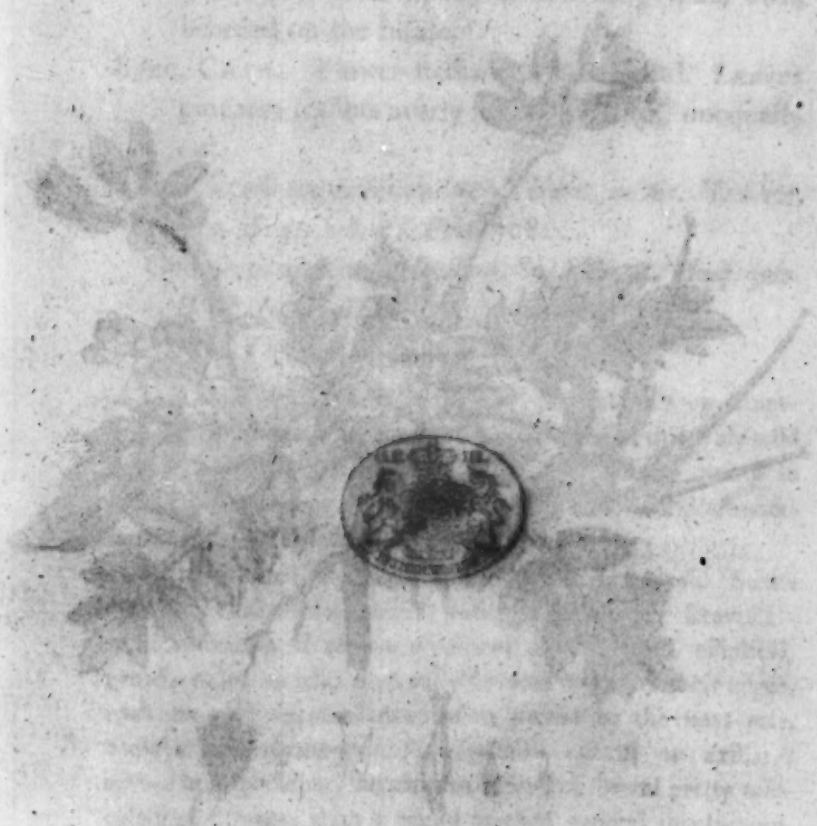
Syn. Arabis thaliana. Linn. Sp. Pl. 929. Sm. Fl. Brit. 712. Hull. 292. With. 587. Hall. 147. Relh. 254. Stokes, 205. Abbot. 145. Curt. Lond. fasc. 6. 49. Dicks. Fl. Sice. fasc. 17. 12.

Turritis vulgaris minor. Ray Syn. 294.

COMMON on walls, rocks, and dry gravelly places, flowering in April.

Root annual, tapering, fibrous. Stem solitary, upright, from 3 to 10 inches high, branched, leafy, round, hairy about the base. Leaves lanceolate, hairy, unequally toothed or lobated, sometimes entire, especially when the plant is flatted and diminutive; the radical ones footstalked to the ground; the rest alternate, and sessile. Flowers corymbose, on slender stalks, small, white. Calyx hardly spreading. Petals erect. Nectariferous glands at the base of the outside curved scales at the base of the shortest stamina, but not projecting between the calyx-leaves, nor do they seem to be sufficiently conspicuous enough in this or any other species to make a generic character. The pods stand nearly erect on spreading stalks, and are linear, a little rugged, but definite of hairbreth.

The whole plant partakes of the pungent flavour of its clafs, but is not remarkable for any peculiar quality. After flattering its leeds in May it foon withers and disappears.





July 1, 1811 Published by J. Sowerby London.

ERODIUM moſchatum:
Muſky Stork's-bill.

MONADELPHIA Pentandria.

Gen. Char. *Cal.* 5-leaved. *Petals* 5. *Honey-glands* 5. *Barren filaments* 5. *Fruit* beaked, ſeparating into 5 capſules, each tipped with a long ſpiral awn, bearded on the inſide.

Spec. Char. Flower-ſtalks many-flowered. Leaves pinnate; leaflets nearly ſeſſile, elliptical, unequally cut.

Syn. Erodium moſchatum. *L'Herit. in Ait. H. Kew. v.* 2. 414. *Sm. Fl. Brit.* 728.

Geranium moſchatum. *Linn. Sp. Pl.* 951. *Hudſ.* 300. *With.* 609. *Hull.* 153. *Raii Syn.* 358.

A RECENT diſcovery of the Rev. Mr. Abbot's on Ampthill warren, Bedfordſhire, who favoured us with this truly wild ſpecimen in April, 1801. The plant ſometimes occurs in elevated paſtures, moſt frequently in Yorkſhire and Weſtmoreland, flowering throughout the ſummer.

Root branched, tapering, ſomewhat fleſhy, annual. Stems ſpreading cloſe to the ground, leafy, round, hairy. Leaves alternate, compoſed of many pairs of almoſt ſeſſile, elliptical, broad, hairy leaflets, unequally ſerrated or cut at their edges, with an odd terminal one, often united to the next pair. Stipulæ membranous. Flower-ſtalks radical or axillary, curved and ſpreading, bearing an umbel of ſeveral pretty roſe-coloured flowers, with a round toothed general involucrum. Calyx tipped with red glands. Fertile ſtamina toothed on each ſide at their baſe; the barren ones broad and entire.

The whole herb is hairy and viſcid, diffuſing a ſtrong muſky fragrance, for which it is ſometimes kept in gardens, and by which it is known from the common *E. cicutarium*, as well as by its broader and leſs divided leaflets.

ERODIUM moschatum.

Musky Stork's-bill.

MONADELPHIA Pentandria.

Gen. Char. Cal. 5-leaved. Petals 5. Nectary 5-lobed 5. Barren filaments 5. Fruit beaked, separating into 5 capsules, each tipped with a long spiral awn, bearded on the inside.

Spec. Char. Flower-stalks many-flowered. Leaves pinnate; leaflets nearly sessile, elliptical, unequally cut.

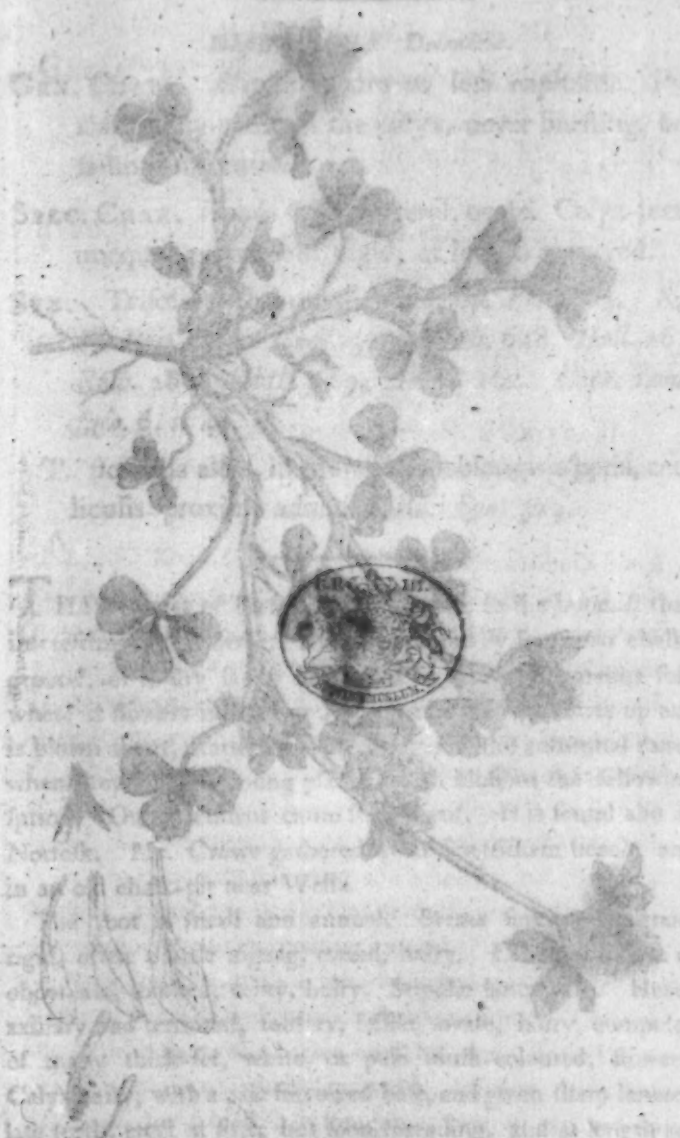
Syn. Erodium moschatum. *L'Herit. in Ait. H. Kew.* v. 2. 414. *Sm. Fl. Brit.* 728:

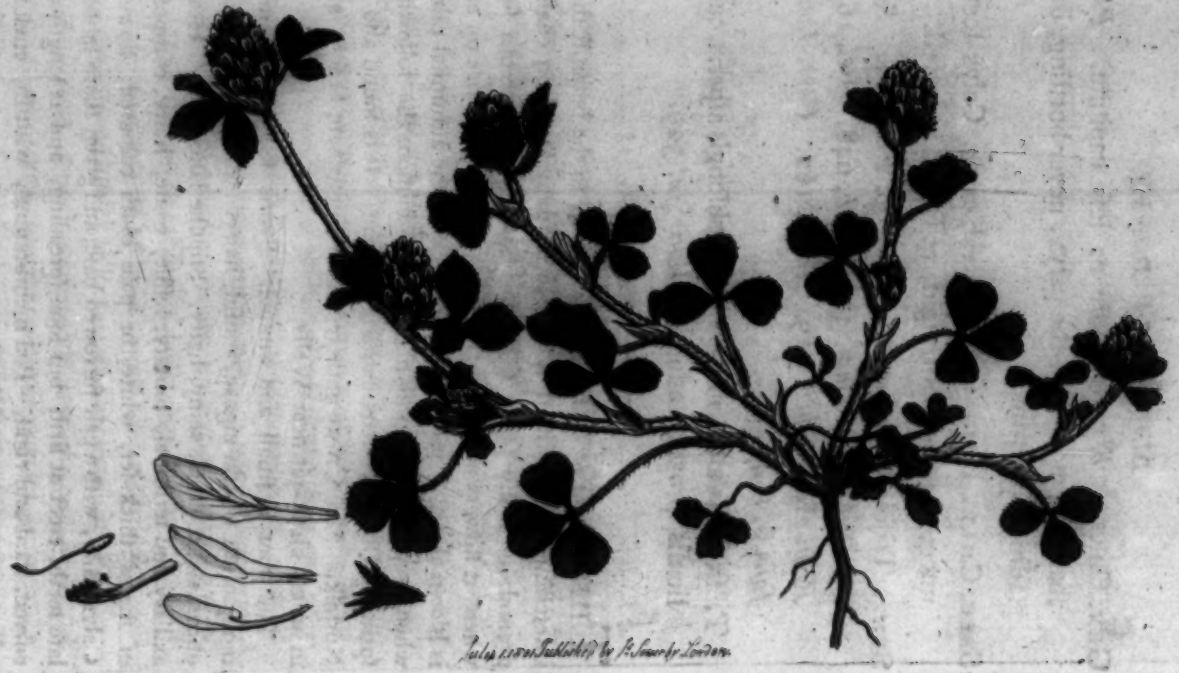
Geranium moschatum. *Linn. Sp. Pl.* 953. *Huds.* 300. *With.* 669. *Fl. Br.* 453. *Rail Syn.* 358.

A RECENT discovery of the Rev. Mr. Abbot's on Ampthill warren, Bedfordshire, who favoured us with this truly wild specimen in April, 1801. The plant sometimes occurs in elevated pastures, most frequently in Yorkshire and Westmoreland, flowering throughout the summer.

Root branched, tapering, somewhat fleshy, annual. Stems spreading close to the ground, hairy, round, hairy. Leaves alternate, compound of many pairs of almost sessile, elliptical, broad, hairy leaflets, unequally serrated or cut at their edges, with an odd terminal one, often united to the next pair. Stipulæ membranous. Flower-stalks radical or axillary, elevated and spreading, bearing an umbel of several pretty rose-coloured flowers, with a round tootled general involucrum. Calyx tipped with red glands. Fertile stamina toothed on each side at their base; the barren ones broad and entire.

The whole herb is hairy and viscid, diffusing a strong musky fragrance, for which it is sometimes kept in gardens, and by which it is known from the common *E. cicutarium*, as well as by its broader and less divided leaflets.





Sowerby del. et Sculpt. Published by J. Sowerby London.

TRIFOLIUM ſcabrum.

Rough Trefoil.

DIADELPHIA Decandria.

GEN. CHAR. *Flowers* more or leſs capitate. *Pod* ſcarcely longer than the calyx, never burſting, but falling off entire.

SPEC. CHAR. Heads ſeſſile, lateral, ovate. Calyx-teeth unequal, permanent, rigid, at length recurved.

SYN. Trifolium ſcabrum. *Linn. Sp. Pl.* 1084. *Sm. Fl. Brit.* 788. *Hudſ.* 327. *With.* 648. *Hull.* 163. *Relh.* 282. *Sibth.* 229. *Abbot.* 162. *Curt. Lond. faſc.* 6. *t.* 48.

T. floſculis albis, in glomerulis oblongis aſperis, cauliculis proximè adnatis. *Raii Syn.* 329.

THIS ſpecies of Trefoil, more curious to the botaniſt than intereſting to the farmer, is only occaſionally found on chalky ground, or in dry ſandy fields that lie over a calcareous ſoil, where it flowers in May or June, and then ſoon dries up and is blown about, ſcattering its ſeeds againſt the autumnal rains, when they produce young plants which bloſſom the following ſpring. Our ſpecimens came from Kent. It is found alſo in Norfolk. Mr. Crowe gathered it on Snettiſham beach, and in an old chalk-pit near Wells.

The root is ſmall and annual. Stems ſeveral, proſtrate, rigid, often a little zigzag, round, hairy. Leaflets obovate or obcordate, toothed, veiny, hairy. Stipulæ lanceolate. Heads axillary and terminal, ſolitary, ſeſſile, ovate, hairy, compoſed of many thick-ſet, white, or pale bluſh-coloured, flowers. Calyx hairy, with a pale furrowed baſe, and green ſharp lanceolate teeth, erect at firſt, but ſoon ſpreading, and at length recurved, hard and rigid. Pod membranous, whitiſh, encloſed in the calyx. Seed yellowiſh.

TRIFOLIUM fœdum.

Rough Trefoil.

Gen. Char. Flowery more or less capitate. Pod scarcely longer than the calyx, never bursting, but falling off entire.

Spec. Char. Heads tufted, lateral, ovate. Calyx-teeth unequal, permanent, rigid, at length recurved.

Syn. Trifolium fœdum. Linn. Sp. Pl. 1084. Sm. Fl. Brit. 785. Fluff. 342. With. 648. Phill. 163. Relh. 282. Stokes. 229. Abbot. 182. Curt. Lond. fasc. 6. t. 48.

T. fœtidus albus, in glomerulis oblongis alperis, cauliculis proximis adnatis. Ray Syn. 329.

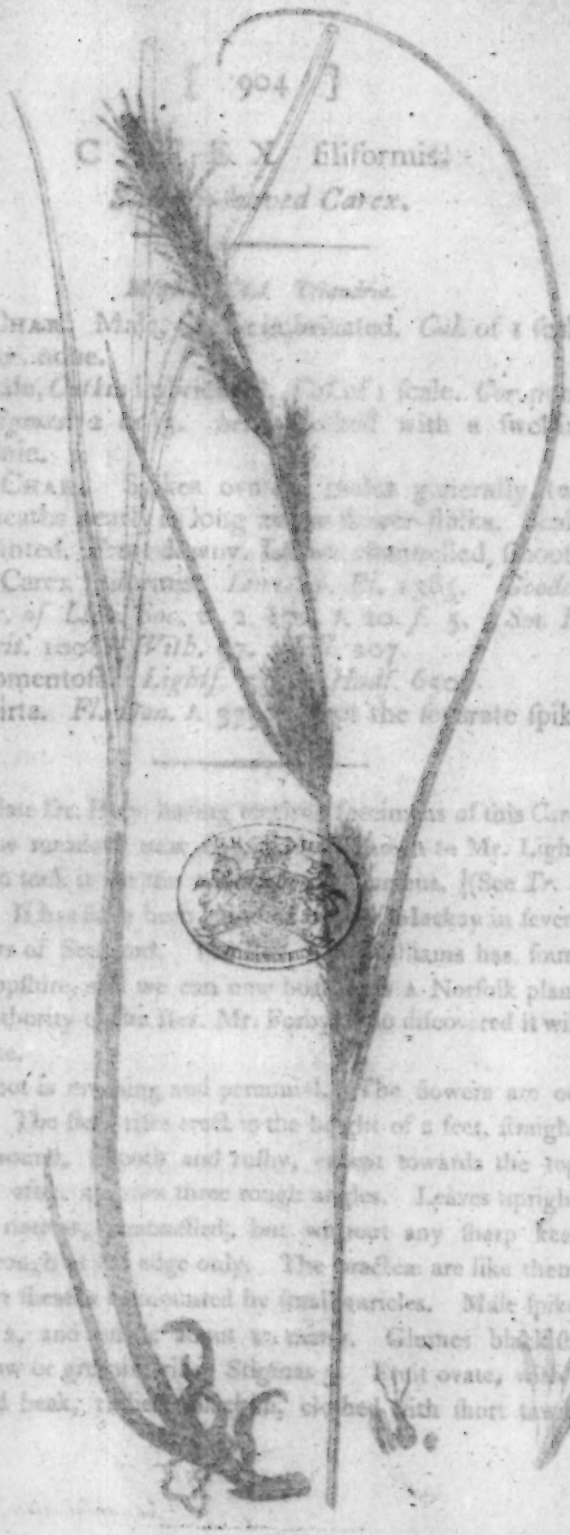
THIS species of Trefoil, more curious to the botanist than interesting to the farmer, is only occasionally found on chalky ground, or in dry sandy fields that lie over a calcareous soil, where it flowers in May or June, and then soon dries up and is blown about, scattering its seeds against the autumnal rains, when they produce young plants which blossom the following spring. Our specimens came from Kent. It is found also in Norfolk. Mr. Crowe gathered it on Snettisham beach, and in an old chalk-pit near Wells.

The root is small and annual. Stems several, prolinate, rigid, often a little zigzag, round, hairy. Leaflets obovate or obcordate, toothed, veiny, hairy. Stipulæ lanceolate. Heads axillary and terminal, tufted, fœtid, ovate, hairy, composed of many thick-set, white, or pale bluish-coloured, flowers. Calyx hairy, with a pale furrowed hale, and green hairy lanceolate teeth, erect at first, but soon spreading, and at length recurved, hard and rigid. Pod membranous, whitish, concealed in the calyx. Seed yellowish.

[904]

C[illegible]. X[illegible]eliformis.

[illegible]-headed Carex.



Gen. Char. Male [illegible] intermixed. *Cal.* of 1 scale. *Cor.* none.

Female, *Cal.* [illegible] of 1 scale. *Cor.* none. *Stigmas* 2 [illegible] with a swelling tunic.

Spec. Char. Spikes oval, [illegible] generally 3 or 4. Sheaths nearly as long as the flowering flakes. Leaves pointed, [illegible] keeled, smooth.

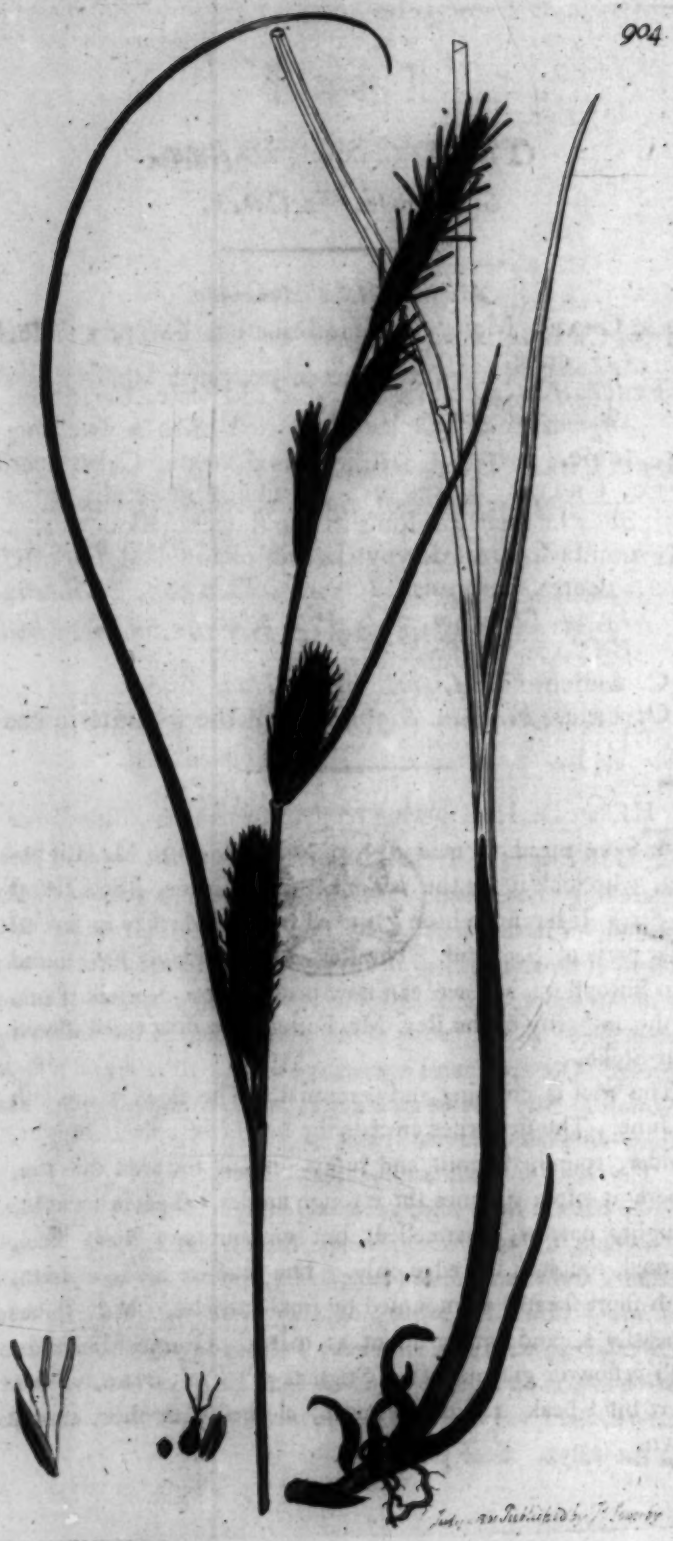
Syn. Carex [illegible] *Lightf. Fl.* 1361. *Sweden. Tr. of L. Soc.* [illegible] 2. 177. t. 10. f. 5. *Sm. Fl. Brit.* 1007. *Fl. Fub.* [illegible] 207.

C. tomentosa. *Lightf.* [illegible] *Hudf.* Carex.

C. hirta. *Fl. Dan.* t. 9[illegible] the [illegible]rate spike.

THE last fpe[illegible] having received fpecimens of this Carex from fome remote [illegible] known to Mr. Lightfoot, who took it [illegible] ments. (See *Tr. of L. Soc.*) It has [illegible] blackish in feveral other parts of Scotland. [illegible]ham has found it in Shropfhire, [illegible] we can now boaft it a Norfolk plant, on the authority [illegible] firſt. Mr. Forſter alſo diſcovered it wild near Stoke.

The root is creeping and perennial. The flowers are out in June. The ſtem rifes erect to the height of a foot, ſtraight, ſlender, ſmooth, [illegible] and ſulky, except towards the top, where it often [illegible] ſome rough angles. Leaves upright, ſtraight, narrow, [illegible] channelled, but without any ſharp keel, pointed, rough [illegible] the edge only. The ſheaths are like them, with ſhort fibres [illegible] by ſmall [illegible]. Male ſpikes generally 3, and [illegible] at top. Glumes [illegible] with yellow or [illegible] Stigmas [illegible] Fruit ovate, [illegible] ſhort bifid beak; [illegible] ſmooth, [illegible] with ſhort [illegible] down.



CAREX filiformis.

Slender-leaved Carex.

MONOECIA Triandria.

GEN. CHAR. Male, *Catkin* imbricated. *Cal.* of 1 ſcale. *Cor.* none.

Female, *Catkin* imbricated. *Cal.* of 1 ſcale. *Cor.* none. *Stigmas* 2 or 3. *Seed* clothed with a ſwelling tunic.

SPEC. CHAR. Spikes ovate; males generally two. Sheaths nearly as long as the flower-ſtalks. Scales pointed. Fruit downy. Leaves channelled, ſmooth.

SYN. Carex filiformis. *Linn. Sp. Pl.* 1385. *Gooden. Tr. of Linn. Soc. v.* 2. 172. *t.* 20. *f.* 5. *Sm. Fl. Brit.* 1008. *With.* 97. *Hull.* 207.

C. tomentoſa. *Lightf.* 553. *Hudſ.* 650.

C. hirta. *Fl. Dan. t.* 379, except the ſeparate ſpike.

THE late Dr. Hope having received ſpecimens of this *Carex* from ſome meadows near Ayr, made it known to Mr. Lightfoot, who took it for the *tomentoſa* of Linnæus. (See *Tr. of L. Soc.*) It has ſince been gathered by Mr. Mackay in ſeveral other parts of Scotland. The Rev. Mr. Williams has found it in Shropſhire, and we can now boaſt it as a Norfolk plant, on the authority of the Rev. Mr. Forby, who diſcovered it wild near Stoke.

The root is creeping and perennial. The flowers are out in June. The ſtem riſes erect to the height of 2 feet, ſtraight, ſlender, round, ſmooth and ruſhy, except towards the top, where it often aſſumes three rough angles. Leaves upright, ſtraight, narrow, channelled, but without any ſharp keel, pointed, rough at the edge only. The bracteæ are like them, with ſhort ſheaths ſurmounted by ſmall auricles. Male ſpikes generally 2, and female about as many. Glumes blackiſh, with yellow or greeniſh ribs. Stigmas 3. Fruit ovate, with a ſhort bifid beak, ribbed, blackiſh, clothed with ſhort tawny down.

CAREX filiformis.

Slender-leaved Carex.

THE late Dr. Hope having received specimens of this Carex from some meadows near Ayr, made it known to Mr. Lightfoot, who took it for the teneratis of Linnæus. (See Fl. Sc.) It has since been gathered by Mr. Maclay in several other parts of Scotland. The Rev. Mr. Williams has found it in Shropshire, and we can now boast it as a Norfolk plant, on the authority of the Rev. Mr. Forby, who discovered it wild near Stoke.

The root is creeping and perennial. The flowers are out in June. The stem rises erect to the height of a foot, slender, round, smooth and ruddy, except towards the top, where it often affumes three rough angles. Leaves upright, straight, narrow, channelled, but without any sharp keel, pointed, rough at the edge only. The bractæ are like them, with short sheaths surmounted by small auricles. Male spikes generally 2, and female about as many. Glumes blackish, with yellow or greenish ribs. Stigmas 3. Fruit ovate, with a short bald beak, ribbed, blackish, clothed with short tawny down.

PHASCUM curvicollum.

Cracked-stalked Earth-Moss.





Pub. 1 Nov. 1803 by Sowerby London

PHASCUM curvicollum.

Crooked-ſtalked Earth-Moſs.

CRYPTOGAMIA Muſci.

GEN. CHAR. *Capſule* ovate, without any ſeparate lid, deciduous. *Veil* minute, deciduous.

SPEC. CHAR. Stem none. Leaves lanceolate, bearded, ſpreading. Capſule elliptical, terminal, on a recurved ſtalk.

SYN. Phaſcum curvicollum. *Hedw. Crypt. v.* 1. 31. *t.* 11. *Dickſ. Crypt. faſc.* 2. 1. *H. Sicc. faſc.* 4. 20. *With.* 786. *Hull.* 252. *Schrad. Spicil.* 58.

FOUND on dry graſſy ſpots near Croydon by Mr. Dickſon, to whom we are obliged for this ſpecimen.

It grows in patches. The root is formed of numerous fibres. Leaves all radical, lanceolate, entire, furniſhed with a red prominent midrib, which terminates in a taper beard or *ariſta*. From the centre of the leaves ſprings a ſolitary naked ſtalk, about their own length, browniſh, ſoon becoming recurved, ſo as to bury in the earth the fruit it bears, which is a ſmall brown capſule, exactly elliptical, terminated by a ſhort ſlightly oblique point. The veil is ſhort and conical, ſoon falling off.

The ripe capſule is to be found about May.

Having in our 5th volume unluckily miſtaken another plant for this, which with regard to ſuch minute objects it is hoped may be pardoned, we would wiſh to change the ſynonyms and characters given at *t.* 330, for the following.

PHASCUM rectum.

Long-ſtalked Earth-Moſs.

SPEC. CHAR. Stem none. Leaves ovate, beardleſs, ſpreading. Capſule ovate, tapering at each end, terminal, on a ſtraightiſh ſtalk.

SYN. Phaſcum rectum. *With.* 787. *t.* 18. *f.* 1. *Hull.* 252.

WE have received this from Newmarket and Denbighſhire. It differs from *P. curvicollum* in having beardleſs, though pointed, leaves, a longer and nearly upright ſtalk, and longer-pointed capſule.

PHASCUM curvicollum.
Crooked-flaked Earth-Moſs.

CRYPTOGAMIA Muſci.

Gen. Char. Capſule ovate, without any ſeparate lid, deciduous. Veil minute, deciduous.

Spec. Char. Stem none. Leaves lanceolate, bearded, ſpreading. Capſule elliptical, terminal, on a recurved ſtalk.

Syn. Phaſcum curvicollum. Hedw. Crypt. v. 1. 31. t. 11. Dick. Cryp. faſc. 2. 1. H. Sue. faſc. 4. 20. Wulf. 786. Hall. 254. Schrad. Spicil. 58.

FOUND on dry gravelly ſpots near Croydon by Mr. Dickſon, to whom we are obliged for this ſpecimen.

It grows in patches. The root is formed of numerous fibres. Leaves all radical, lanceolate, entire, furniſhed with a red prominent midrib, which terminates in a taper beard or awn. From the centre of the leaves ſpringş a ſolitary naked ſtalk, about their own length, brownish, ſoon becoming recurved, ſo as to bury in the earth the fruit it bears, which is a ſmall brown capſule, exactly elliptical, terminated by a ſhort ſlightly oblique point. The veil is ſhort and conical, ſoon falling off.

The ripe capſule is to be found about May.

Having in our 5th volume minutely miſtaken another plant, for this, which with regard to ſuch minute objects it is hoped may be pardoned, we would with to change the ſynonyms and characters given at v. 330, for the following.

PHASCUM rectum.
Long-ſtalked Earth-Moſs.

Spec. Char. Stem none. Leaves ovate, bearded, ſpreading. Capſule ovate, tapering at each end, terminal, on a ſtraight ſtalk.

Syn. Phaſcum rectum. With. 787. 2. 18. Lyt. Hall. 254.

WE have received this from Newmarket and Denbighſhire. It differs from P. curvicollum in having bearded, though pointed, leaves, a longer and nearly upright ſtalk, and longer-pointed capſule.





July 1 1801 Published by Jas Sowerby London

LICHEN ventoſus.

Red-ſpangled Tartareous Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, ſcattered warts.
Female, ſmooth ſhields or tubercles, in which the ſeeds are imbedded.

SPEC. CHAR. Cruſt rugged, formed of tumid warts, of a pale ſulphur-colour. Shields irregular, a little ſwelling, blood-red, with a narrow pale border.

SYN. Lichen ventoſus. *Linn. Sp. Pl.* 1607. *Achar. Prod.* 46. *Hudſ.* 527. *With. v.* 4. 16. *Hull.* 288. *Lightf.* 806. *Dickſ. H. Sicc. faſc.* 5. 23.

L. cruentus. *Web. Goett.* 184. *t.* 1.

L. gelidus. *Hudſ.* 528.

Lichenoides tartareum lividum, ſcutellis rufis, margine exili. *Dill. Muſc.* 133. *t.* 18. *f.* 14.

WE have received this elegant Lichen from Durham by favour of the Rev. Mr. Harriman, and have ourſelves gathered it in great perfection on Ben Lomond; on Caſterton Fell, near Kirkby Lonſdale, Weſtmoreland; and in ſome other places. It grows on large expoſed ſtones of the granite kind.

The cruſt ſpreads in patches 6 or 8 inches broad, and may in moiſt weather be pared off entire from the rock. It is moderately thick, apparently a congeries of crowded ſwelling ſmooth (not mealy) warts, of a pale yellowiſh green or ſulphur-colour, which however changes to a tolerably pure white in the courſe of one winter's growth, for the plant appears to laſt ſeveral years. The ſhields are numerous, ſcattered, of a beautiful crimſon or blood-red, irregular in ſize and ſhape, a little tumid, and encompaſſed by a margin of the colour of the cruſt, becoming narrower and ſtained with red by age. Little black rugged warts are alſo ſcattered over the ſurface of the cruſt, or in its cracks; we can only gueſs them to be the male part of the fructification. The old ſhields turn black in decay, and often bear young ones.

That this when white is the *L. gelidus* of Mr. Hudſon, I ventured many years ago to preſume from his deſcription, and the ſynonym (though wrong tranſcribed in the *Fl. Angl.*) of Dillenius. For the true *gelidus* ſee our *v.* 10. *t.* 699.

LICHEN ventosus.
Red-flanged Tartarean Lichen.

CRYPTOGAMIA Algæ.

Gen. Char. Male, scattered warts.
Female, smooth shields or tubercles, in which the seeds are imbedded.

Spec. Char. Crust rugged, formed of tumid warts, of a pale tulipbur-colour. Shields irregular, a little swelling, blood-red, with a narrow pale border.

Syn. Lichen ventosus. Linn. Sp. Pl. 1609. Acharii Prod. 46. Hudf. 529. With. v. 4. 16. Hall. 1883. Lightf. 806. Dicks. H. Sicc. fasc. 5. 23.

L. crocatus. With. Gazt. 1814. 1.

L. gelidus. Hudf. 528.

Lichenoides tartareum lividum, fructibus rufis, margine exili. Dill. Musc. 123. t. 18. f. 14.

We have received this elegant Lichen from Durham by favour of the Rev. Mr. Harriman, and have ourselves gathered it in great perfection on Ben Lomond; on Galferton Fell, near Kirkby Lonsdale, Westmoreland; and in some other places. It grows on large exposed stones of the granite kind.

The crust spreads in patches 6 or 8 inches broad, and may in most weather be pared off entire from the rock. It is moderately thick, apparently a congeries of crowded swelling smooth (not mealy) warts, of a pale yellowish green or tulipbur-colour, which however changes to a tolerably pure white in the course of one winter's growth, for the plant appears to last several years. The shields are numerous, scattered, of a beautiful crimson or blood-red, irregular in size and shape, a little tumid, and encompassed by a margin of the colour of the crust, becoming narrower and fainter with red by age. Little black rugged warts are also scattered over the surface of the crust, or in its cracks; we can only guess them to be the male part of the fructification. The old shields turn black in decay, and often bear young ones.

That this wben white is the L. gelidus of Mr. Hudson, I ventured many years ago to presume from his description, and the synonym (though wrong transcribed in the M. Meth.) of Dillenius. For the true gelidus see v. 10. t. 699.




GEORGIUS III.
DEI GRATIA



Augt 1 1801. Published By Jas Sowerby, London.

LICHEN Papillaria.

Papillary Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, ſcattered warts.

Female, ſmooth ſhields or tubercles, in which the ſeeds are imbedded.

SPEC. CHAR. Cartilaginous; leaflets minute, rounded, imbricated. Stems moſtly ſimple, erect, ſhort, tubular, inflated, whitiſh. Tubercles terminal, ſolitary, globoſe, brown.

SYN. Lichen Papillaria. *Achar. Prod.* 88. *Dickſ. Crypt. faſc.* 1. 13. *With. v.* 4. 45. *Hull.* 305.

L. madreporæformis, *Wulf. in Jacq. Coll. v.* 3. 105. *t.* 3. *f.* 2.

Coralloides minimum fragile, Madreporæ inſtar naſcens. *Dill. Muſc.* 107. *t.* 16. *f.* 28.

FOUND on dry expoſed heaths in the winter ſeaſon. Dillenius mentions it as growing near Farnham. Mr. D. Turner ſent it from Yarmouth, and we have gathered it on Mouſehold heath, Norwich, towards Rackheath.

Surely Mr. Dickſon and others, who have placed this Lichen in the Linnæan diviſion of *fruticuloſi*, have come nearer the truth than Dr. Acharius, who has removed it to the ſame tribe with *L. corallinus*. We venture in this inſtance therefore to diſſent from his opinion, and to refer the plant in queſtion to his 23d tribe, *Cladonia*, conſiſting of *L. uncialis*, *rangiferinus*, and others, whoſe baſis is formed of imbricated leaves, which bear tubular ſtalks, fructifying at the ſummit. The cruſt of *L. Papillaria* is decidedly ſuch, though minute. The ſtalks or ſtems ſtand more or leſs cloſely, upright, and are very ſhort, generally ſimple, hollow and inflated. Dillenius and Wulfen repreſent a more ſlender and branched variety, which more nearly approaches the other *Cladoniæ*. Round brown ſolitary little tubercles terminate each ſtem.

We can by no means conſider Weber's *L. fragilis α* as having any thing to do with the above, but rather preſume he intended our *fragilis t.* 114. *f.* 1, and has miſquoted Dillenius and Haller.

LICHEN Papillaria.

Papillary Lichen.

CRYPTOGAMIA Alga.

Gen. Char. Male, scattered warts.

Female, smooth thecla or tubercles, in which the seeds are imbedded.

Spec. Char. Cartilaginous; leaflets minute, rounded, imbricated. Stems mostly simple, erect, short, tubular, inflated, whitish. Tubercles terminal, solitary, globose, brown.

Syn. Lichen Papillaria.

Obs. I. in. Web. 2. 4. Linn. Trans. 3. 105.

L. imbricata. With. 4. 3. Eng. Bot. t. 1095.

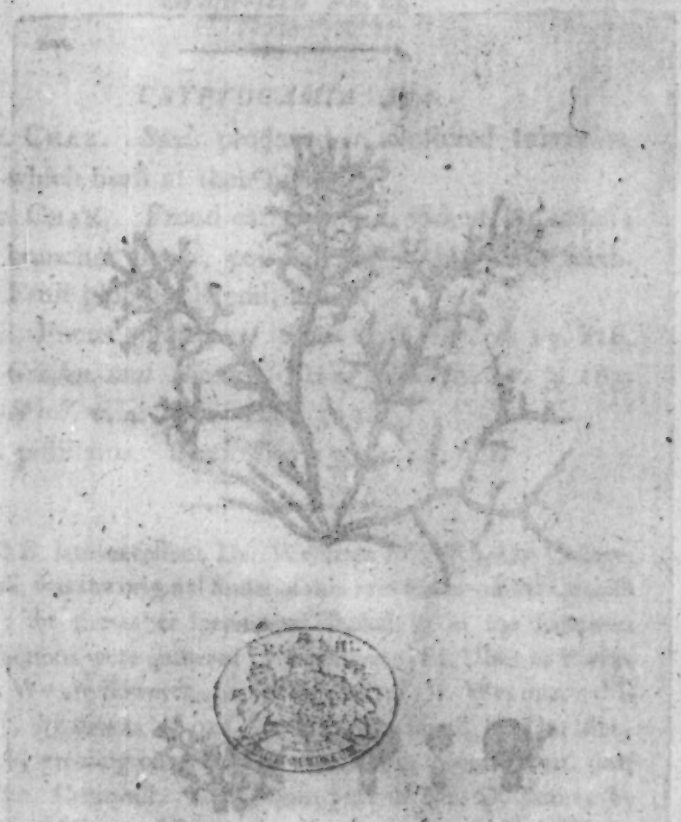
A. 3. f. 2.

Cornicularia minutissima fragilis, subramosa, intricata, nidosa. Dill. Musc. 107. t. 15. f. 23.

FOUND on dry exposed heaths in the winter season. Dillenius mentions it as growing near Farnham. Mr. D. Turner first met with it from Yarmouth, and we have gathered it on Newfield heath, Norwich, between Reedham.

Sweet, Mr. Dickson and others, also have placed this Lichen in the Linnean division of Cornicularia, have come nearer the truth than Dr. Acharius, who has removed it to the same tribe with L. cornuina. We venture in this instance to dissent from his opinion, and to refer the plant in question to his 44th tribe, Cladonia, consisting of L. cornuta, fimbriata, and others, whole habit is formed of imbricated leaves, which bear tubular thecia, resulting at the termini. The genus of L. Papillaria is decidedly leafy, though minute. The thecia or stems stand more or less closely, upright, and are very short, generally simple, hollow and inflated. Dillenius and Wulfen appear to have seen more branched varieties, which more nearly approaches the other Cladoniæ. Round brown foliary tubercles terminate each stem.

We can by no means consider Weber's L. fragilis as having any thing to do with the above, but rather suppose he intended our Fragilis t. 114. f. 1, and has misquoted Dillenius and Hiller.





Augt 1. 1801. Published by Jas Sowerby, London.

FUCUS gigartinus.

Grape-ſeed Fucus.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Seeds* produced in cluſtered tubercles, which burſt at their ſummits.

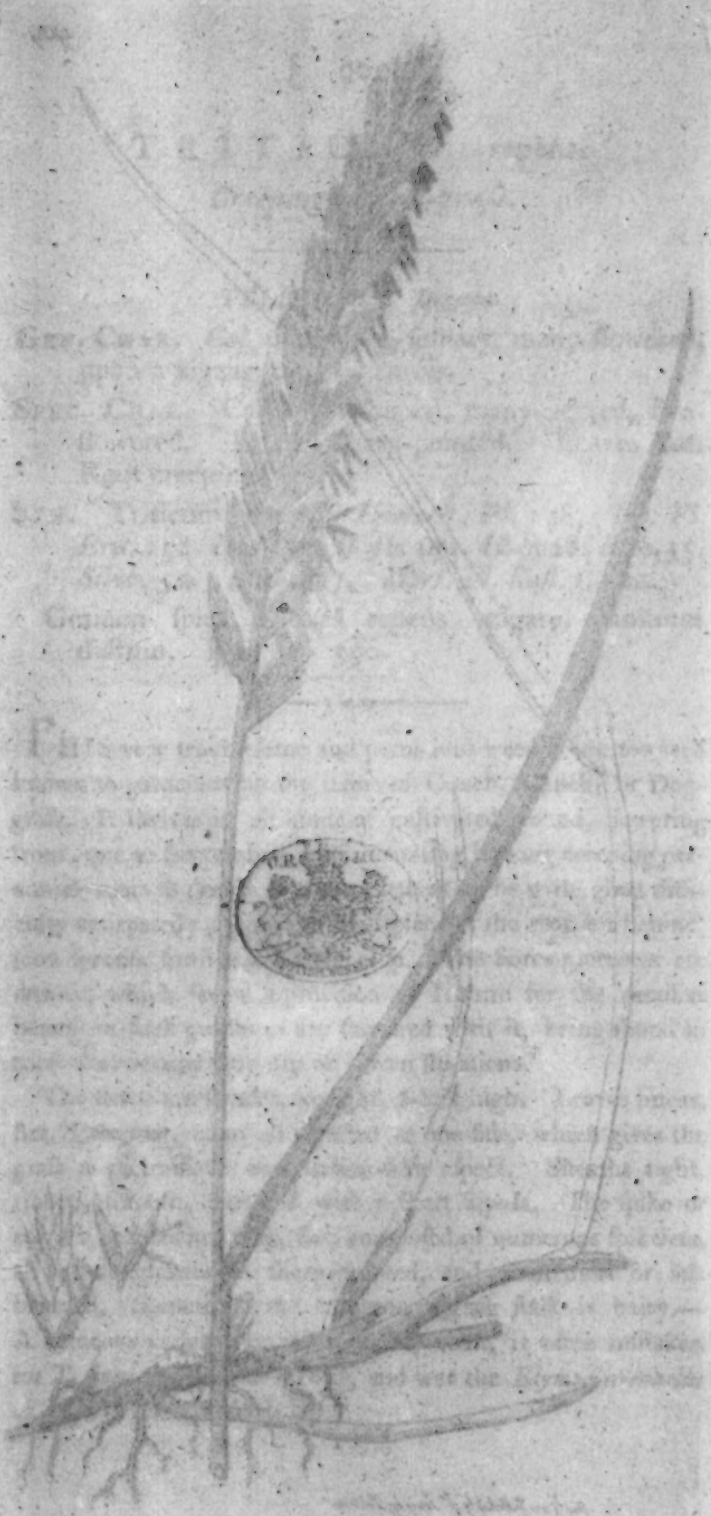
SPEC. CHAR. Frond cartilaginous, forked, branched; branches linear, pointed, ſet with ſpinous teeth. Fruit globoſe, lateral, ſeſſile.

SYN. Fucus gigartinus. *Linn. Syſt. Veg. ed.* 13. 816. *Gooden. and Woodw. Tr. of Linn. Soc. v.* 3. 183. *With. v.* 4. 111. *Hull.* 323.

F. piſtillatus. *Gmel. Fuci* 159. *t.* 18. *f.* 1.

THE late excellent Dr. Wenman of All Souls College, Oxford, was the original finder of this rare Fucus on the Corniſh coaſt; for the other ſpecimens alluded to in the Linnæan Tranſactions were gathered by Loefling at St. Ubes in Portugal. We are however enabled to confirm Dr. Wenman's diſcovery, by means of one fine ſpecimen found by Dr. Maccullock, growing on a bank of *Sabella*, in Mounts-bay, near Newlyn, Cornwall. It has been ſent to Mr. D. Turner by Profeſſor Mertens of Bremen, under the name of *F. piſtillatus* of Gmelin.

Many fronds grow from one callous baſe, and are various in height from 2 to 5 inches; their ſubſtance is rigid and horny; their colour blackiſh at the baſe, dull-red upwards, paler and often greeniſh at the ſummits. Each frond is linear, flattiſh, forked, and variouſly branched, ending in taper points, and furniſhed in the upper part chiefly with ſpinous teeth, the rudiments of branches. The fructification is ſtriking and characteriſtic, conſiſting of dark-red ſeſſile lateral globules, containing a cluſter of ſeeds, which at length come forth at a terminal orifice.





Aug.t 1.st Published by J.t Sowerby London

TRITICUM repens.

Creeping Wheat-graſs.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves, ſolitary, many-flowered, upon a zigzag toothed *rachis.*

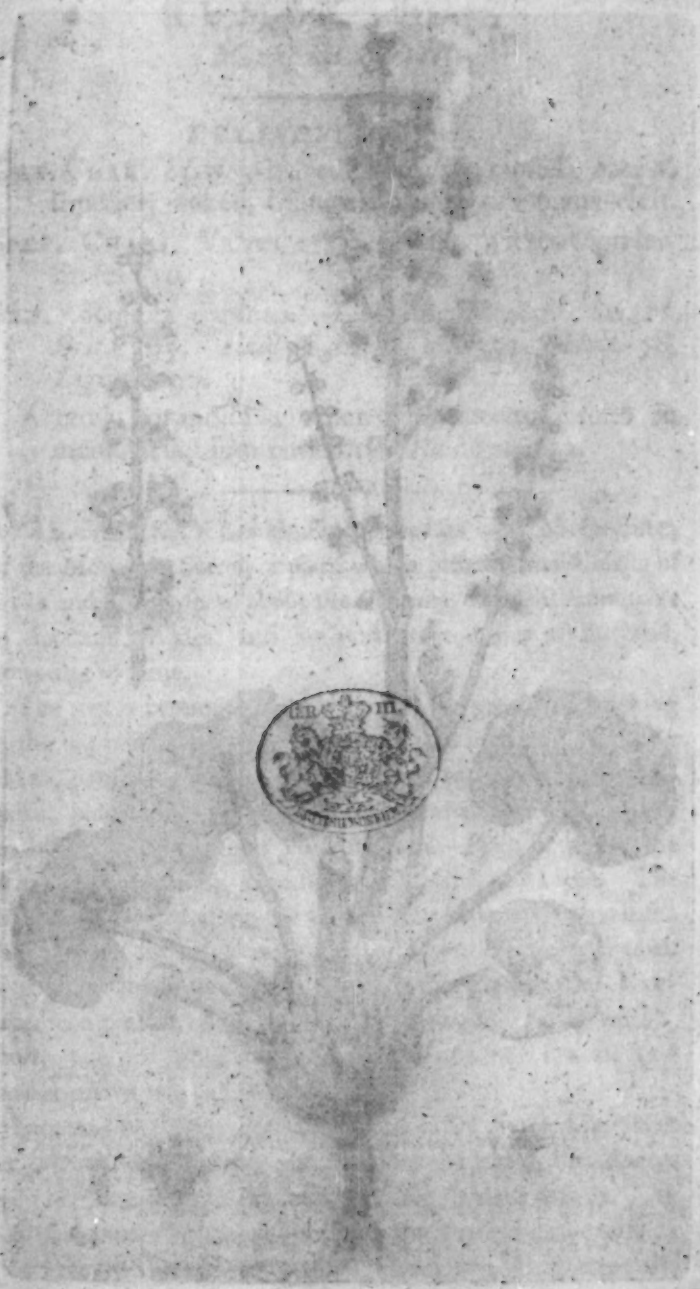
SPEC. CHAR. Calyx awl-ſhaped, many-nerved, five-flowered. Florets ſharp-pointed. Leaves flat. Root creeping.

SYN. Triticum repens. *Linn. Sp. Pl.* 128. *Sm. Fl. Brit.* 158. *Hudſ.* 57. *With.* 173. *Hull.* 28. *Relh.* 55. *Sibth.* 52. *Abbot.* 27. *Mart. Fl. Ruſt. t.* 124.

Gramen ſpicâ triticeâ repens vulgare, caninum dictum. *Raii Syn.* 390.

THIS very troubleſome and pernicious weed is but too well known to gardeners by the name of Couch, Quick, or Dog-graſs. It thrives in all kinds of cultivated ground, flowering from June to September, and inſinuating its long creeping perennial roots ſo deeply into the earth as to be with great difficulty extirpated; for a very ſmall piece of the root left behind, ſoon ſprouts forth into a freſh crop. The fibres moreover are downy, which ſeems a proviſion of Nature for the peculiar benefit of ſuch graſſes as are favoured with it, being found in moſt that occupy very dry or barren ſituations.

The ſtems are ſlender, upright, 2-feet high. Leaves linear, flat, ſpreading, often all directed to one ſide, which gives the graſs a picturesque and Indian-like aſpect. Sheaths tight, ribbed, ſmooth, crowned with a ſhort ſtipula. The ſpike or ear is 2 or 3 inches long, flat, compoſed of numerous ſpikelets, all whoſe glumes are ſharp-pointed, and often more or leſs bearded. Sometimes the common zigzag ſtalk is hairy.—A glaucous variety, common on the coaſt, is often miſtaken for *T. junceum*, ſee our *t.* 814, and was the *Elymus arenarius* of Mr. Hudſon's 1ſt edition.





RUMEX digynus.
Mountain Sorrel.

HEXANDRIA Trigynia.

GEN. CHAR. *Cal.* 3-leaved. *Petals* 3, cloſed. *Seed* 1, ſuperior, naked, triangular. *Stigmas* many-cleft.

SPEC. CHAR. Valves ovate, entire, without grains. Styles two.

SYN. Rumex digynus. *Linn. Sp. Pl.* 480. *Sm. Fl. Brit.* 395. *Hudſ.* 156. *With.* 357. *Hull.* 78. *Lightf.* 190.

Acetoſa rotundifolia repens Eboracenſis, folio in medio deliquium patiente. *Raii Syn.* 143.

MR. MACKAY has kindly ſupplied us with this ſpecimen of the Mountain Sorrel, a plant which inhabits moiſt clefts of rocks and boggy ſpots about the ſummits of high mountains in Scotland, Wales, and the northern counties of England, flowering in June.

The root is perennial, deeply fixed in the ground, branching at the top into many heads. Stems 6 or 8 inches high, nearly naked, panicled. Leaves almoſt entirely radical, on long foot-ſtalks, kidney-ſhaped, cut off as it were at the end, entire, ſmooth, veiny, of a light pleaſant green. Each branch of the ſtem has a ſheathing membranous bractea at its baſe. The flowers are ranged along the branches in little pendulous tufts. Segments of the calyx unequal, ovate, entire and undivided, deſtitute of any granulations. Stamina ſhort. Germen obcordate, compreſſed, with 2 red-edged wings. Styles but 2, ſhort, with red tufted ſtigmas. The whole herb has an acid flavour mixed with aſtringency.

Linnæus in *Critica Botanica p.* 220 juſtly diverts himſelf at the expenſe of Moriſon, who deſcribes the leaf of this *Rumex* as "fainting away in the middle;" ſee Ray's ſynonym. He at firſt conceived Moriſon intended the garden ſorrel with a pale ſpot on the leaf, as perſons who faint always turn pale, but afterwards found his miſtake.





Aug.st 1.1805. Published by J. Sowerby London.

STELLARIA ceraſtoides.

Alpine Stitchwort.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* 5-leaved, ſpreading. *Petals* 5, deeply cloven. *Capſ.* ſuperior, of 1 cell, with 6 teeth at the orifice. *Seeds* numerous.

SPEC. CHAR. Leaves elliptic-oblong, bluntiſh. Stems generally two-flowered, marked with a hairy longitudinal line. Calyx-leaves with a ſingle nerve, downy.

SYN. Stellaria ceraſtoides. *Linn. Sp. Pl.* 604. *Sm. Fl. Brit.* 477. *Pl. Ic. t.* 15. *Dickſ. Tr. of Linn. Soc. v.* 2. 290. *H. Sicc. faſc.* 2. 11. *With.* 421. *Hull.* 97. *Fl. Dan. t.* 92.

AN uncoloured plate of this plant was given in the firſt faſciculus of my *Plantarum Icones* in 1789, becauſe I had then no idea of its being any where figured, and few botaniſts appeared to know it. Linnæus himſelf after publiſhing an excellent deſcription in *Fl. Suec. n.* 394, confounded many other things with it. Mr. Dickſon firſt made it known as a Britiſh native. Our wild ſpecimens were gathered on Ben Nevis, and mountains to the north of Invercauld, by Mr. J. Mackay.

The root is perennial and creeping, and the flowers come out in June. Stems diffuſe, branched at the bottom, leafy, marked with a ſlender alternate hairy line (firſt detected by Mr. Sowerby) as in the Common Chickweed *t.* 537, which confirms the generic affinity of the two plants. The flower-ſtalks however, which grow about 2 together at the extremity of the ſtem, are downy in every part. Leaves oppoſite, lanceolate or ſomewhat ſpatulate, blunt, entire, ſmooth, often leaning to one ſide. Flowers erect, white. Calyx-leaves obtuſe, ſingle-ribbed, downy and viſcid at the baſe, membranous in the margin. Petals about twice as long as the calyx, cloven half-way down, narrow. Styles ſometimes 4 or 5; teeth of the capſule double their number. Seeds rough, pale brown.

STELLARIA cerastioides.
Alpine Stitchwort.

DECANDRIA Trigynia.

GEN. CHAR. Cal. 5-leaved, spreading. Petals 5, deeply cloven. Caps. superior, of 1 cell, with 6 teeth at the orifice. Seeds numerous.

SPEC. CHAR. Leaves elliptic-oblong, blunt. Stems generally two-flowered, marked with a hairy longitudinal line. Calyx-leaves with a single nerve, downy.

SYN. Stellaria cerastioides. Linn. Sp. Pl. 604. Sm. Fl. Brit. 497. Fl. Brit. n. 15. Dick. Tr. of Linn. Soc. v. 2. 290. Fl. Scot. 98. n. 15. With. 422. Hull. 97. Fl. Lanc. 2 pa.

A MOORISH place of this plant was given in the first edition of my Flora Lancastriensis, because I had then no idea of its being any where figured, and for botanists appeared to know it. Curtis's Herbal after publishing an excellent description in Fl. Scot. as quoted many other things with it. Mr. Dickson has made it known as a British native. Our wild specimens were gathered on Pen Nevis, and mountains to the north of Inverness, by Mr. J. Mackay.

The root is perennial and creeping, and the flowers come out in June. Stems diffuse, branched at the bottom, leafy, marked with a slender whitish hairy line (first observed by Mr. Sowerby) as in the Common Chickweed, t. 831, which confirms the generic affinity of the two plants. The flowers, however, which grow about a fortnight at the extremity of the stem, are downy in every part. Leaves opposite, lanceolate or somewhat spatulate, blunt, entire, three-nerved, often keeling on one side. Flowers small, white. Calyx-leaves oblong, single-nerved, downy, and villose at the back, membranous in the margin. Petals about twice as long as the calyx, cloven half-way down, narrow. Styles commonly 4 or 5, rarely 6. Seeds of the capsule double their number. Seeds rough, pale brown.

N° DRABA aizoides.

Gardenell leaved Whitlow grass.



GEORGIUS III



Engd. as the Publisher by J. Sowerby London

DRABA muralis.

Speedwell-leaved Whitlow-graſs.

TETRADYNAMIA Siliculoſa.

GEN. CHAR. *Pouch* entire, long-oval: valves flattiſh, parallel to the partition. *Style* ſcarcely any.

SPEC. CHAR. Stem branched. Leaves heart-ſhaped, toothed, hairy. Pouch elliptical, obtuſe, flat.

SYN. Draba muralis. *Linn. Sp. Pl.* 897. *Sm. Fl. Brit.* 679. *Hudſ.* 278. *With.* 566. *Hull.* 143. Burſa paſtoris major, loculo oblongo. *Raii Syn.* 292.

GATHERED by the Rev. Mr. Abbot, in flower April 14 laſt, on the Wardon Hills, near Barton in the clay, Bedfordſhire, and the ſecond rare north-country plant which has rewarded that gentleman's perſeverance and acuteneſs this ſpring in his own neighbourhood, ſee *t.* 902. This *Draba* has ſcarcely before been found truly wild out of Yorkſhire, though naturalized on walls about Chelſea garden. It loves a dry calcareous ſoil, and rather ſhady ſituation.

The root is annual, ſmall, fibrous, or ſomewhat ſpindle-ſhaped. Stem a ſpan high, branched from the bottom, leafy, round, clothed with depreſſed forked and ſtellate hairs. Leaves alternate, heart-ſhaped; the uppermoſt claſping the ſtem; the loweſt on ſhort footſtalks; all toothed, rough with ſimple and forked hairs intermixed. Flowers in a terminal *corymbus*, lengthened out as the fruit is fully formed into a very long *racemus*, ſmall, white, numerous. Petals undivided, obovate. Pouch flat, not twiſted, elliptical, bluntiſh, ſmooth, ſtanding on the ſpreading horizontal hairy flowerſtalk, about twice its own length. Style very ſhort, crowning the pouch.

DRABA *muralis*.

Spear-leaved-leaved Whitlow-grass.

TETRADYNAMIA SILIQUOSA.

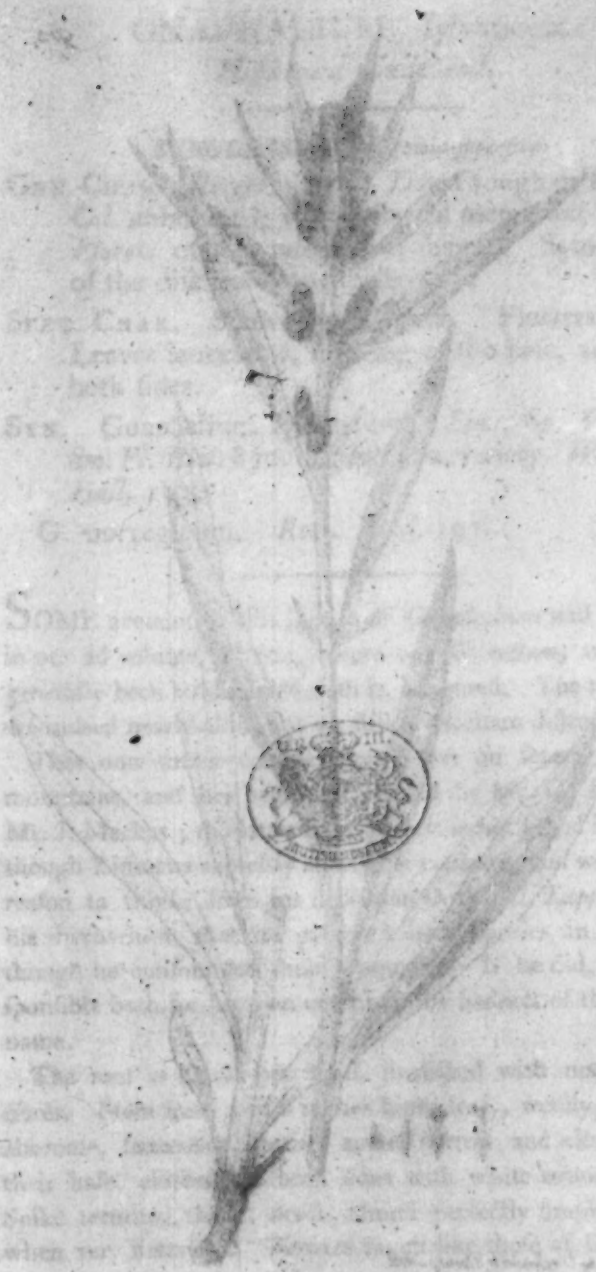
Gen. Char. Pod entire, long-oval; valves flattish, parallel to the partition. Style scarcely any.

Spec. Char. Stem branched. Leaves heart-shaped, toothed, hairy. Pouch elliptical, obtuse, flat.

Syn. Draba muralis. Linn. Sp. Pl. 897. Sm. Fl. Brit. 679. Hull. Herb. 256. With. 556. With. Arr. Brit. pl. 2. major, loculis oblongis. Ray Syn. 292.

CAPTURED by the Rev. Mr. Abbot, in flower April 14, on the Walton Hills, near Barton in the clay, Bedfordshire, and the second rare north-country plant which he remarked that gentleman's perseverance and research this spring in his own neighbourhood, for [illegible] has lately before been found truly wild on [illegible] Hill, and other [illegible].

The root is annual, fibrous. [illegible] Stem a span high, [illegible] round, clothed with depressed forked and [illegible] alternate, heart-shaped; the upper [illegible] lower or short footstalks; all toothed, [illegible] forked hairs intermixed. Flowers in a terminal [illegible] lengthened out as the fruit ripens into a very long [illegible] small, white, numerous. Petals [illegible] Pouch flat, not twisted, elliptical, blunt, [illegible] on the spreading horizontal hairy flowerstalk, about twice its own length. Style very short, crowning the pouch.





GNAPHALIUM ſylvaticum.
Highland Cudweed.

SYNGENESIA Polygamia-ſuperflua.

GEN. CHAR. *Recept.* naked. *Down* rough or feathery. *Cal.* imbricated; with coloured membranous ſcales. *Florets* of the radius awl-ſhaped. Some *florets* of the diſk occaſionally abortive.

SPEC. CHAR. Stem ſimple, erect. Flowers ſpiked. Leaves lanceolate, tapering at the baſe, woolly on both ſides.

SYN. Gnaphalium ſylvaticum. *Linn. Sp. Pl.* 1200. *Sm. Fl. Brit.* 870. *Lightf.* 472, variety. *With.* 713. *Hull.* 183.

G. norvegicum. *Retz. Prod.* 193.

SOME account of this ſpecies of *Gnaphalium* will be found in our 2d volume, *p.* 124, where our *G. rectum*, which has generally been confounded with it, is figured. The two plants are indeed nearly akin, but we ſtill think them diſtinct.

That now under conſideration grows on ſeveral highland mountains, and has been ſent us wild by Mr. G. Don, and Mr. J. Mackay; the latter informs us it is not found in woods, though Linnæus expreſsly aſſerts the contrary, and we have no reaſon to think, from his definition in the *Fl. Lapp.* or from his herbarium, that he gathered both ſpecies in Lapland, though he confounded their ſynonyms. If he did, he is reſponſible both for his own error and the badneſs of the ſpecific name.

The root is black, perennial, furniſhed with many ſimple fibres. Stem from 4 to 6 inches high, leafy, woolly. Leaves alternate, lanceolate, entire, acute, narrow and elongated at their baſe, clothed on both ſides with white cottony down. Spike terminal, leafy, denſe, almoſt perfectly ſimple, except when very luxuriant. Flowers much like thoſe of *G. rectum*, except that the calyx-ſcales are more compact, and much blacker towards their extremities.

GNAPHALIUM *sylvaticum*.
Highland Cudweed.

Gen. Char. *Recep.* naked. *Down* rough or feathery. *Cal.* imbricated; with coloured membranous scales. *Flower* of the radius tri-fid. Some flowers of the disk occasionally abortive.

Spec. Char. Stem branched, erect. *Flowers* tufted. *Leaves* lanceolate, tapering at the base, woolly on both sides.

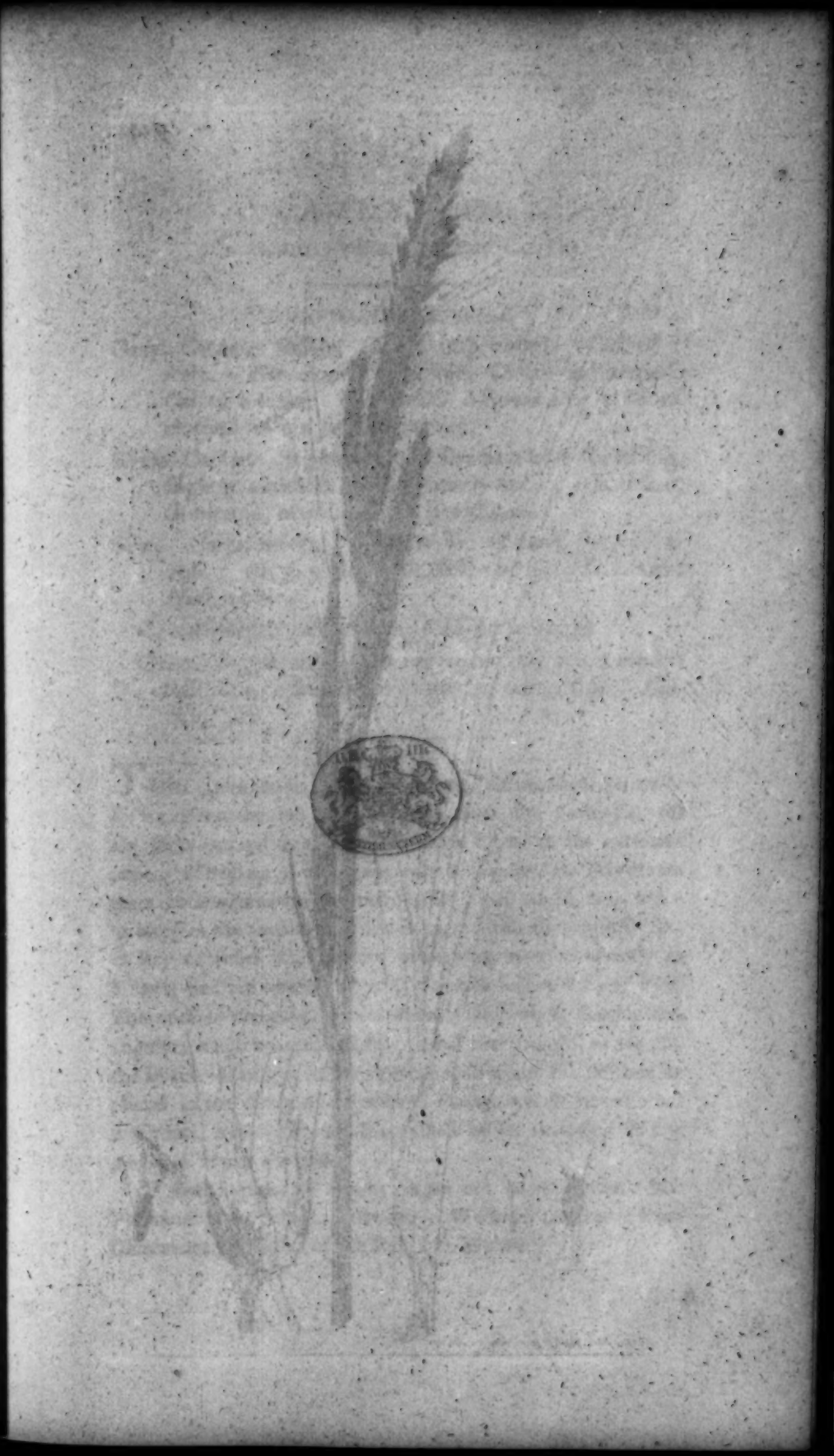
Syn. *Gnaphalium sylvaticum*. Linn. Sp. Pl. 1200. Sm. Fl. Brit. 870. Light. 429, variety. With. 713. Hull. 183.

G. norvegicum. Retz. Obs. 103.

SOME account of this species of *Gnaphalium* will be found in our 2d volume, p. 134, where our *G. rufum*, which has generally been confounded with it, is figured. The two plants are indeed nearly alike, but we still think them distinct.

That now under consideration grows on several highland mountains, and has been left us with by Mr. *G. Don*, and Mr. *J. Mackay*; the latter informs us it is not found in woods; though *Linnæus* expressly affirms the contrary, and we have no reason to think, from his definition in the Fl. Lapp. or from his Herbarium, that he confounded both species in Lapland, though he confounded their synonyms. If he did, he is responsible both for his own error and the blunders of the species name.

The root is black, perennial, furnished with many simple fibres. Stem from 4 to 6 inches high, simple, woolly. Leaves alternate, lanceolate, obtuse, entire, narrow and elongated at their base, clothed on both sides with white cottony down. Spike terminal, leafy, dense, almost perfectly simple, except when very luxuriant. Flowers much like those of *G. rufum*, except that the calyx-leaves are more coloured, and much blacker towards their extremities.



914.



Aug.ª 1.ª 1801 Published by J. Sowerby London.

CAREX ſtricta.

Glaucous ſtraight-leaved Carex.

MONOECIA Triandria.

GEN. CHAR. Male, *Catkin* imbricated. *Cal.* of 1 ſcale. *Cor.* none. Female, *Catkin* imbricated. *Cal.* of 1 ſcale. *Cor.* none. *Stigmas* 2 or 3. *Seed* clothed with a ſwelling tunic.

SPEC. CHAR. Stigmas two. Bracteæ not ſheathing, ſlightly auricled. Spikes nearly ſeſſile, cylindrical, elongated, acute. Fruit deciduous.

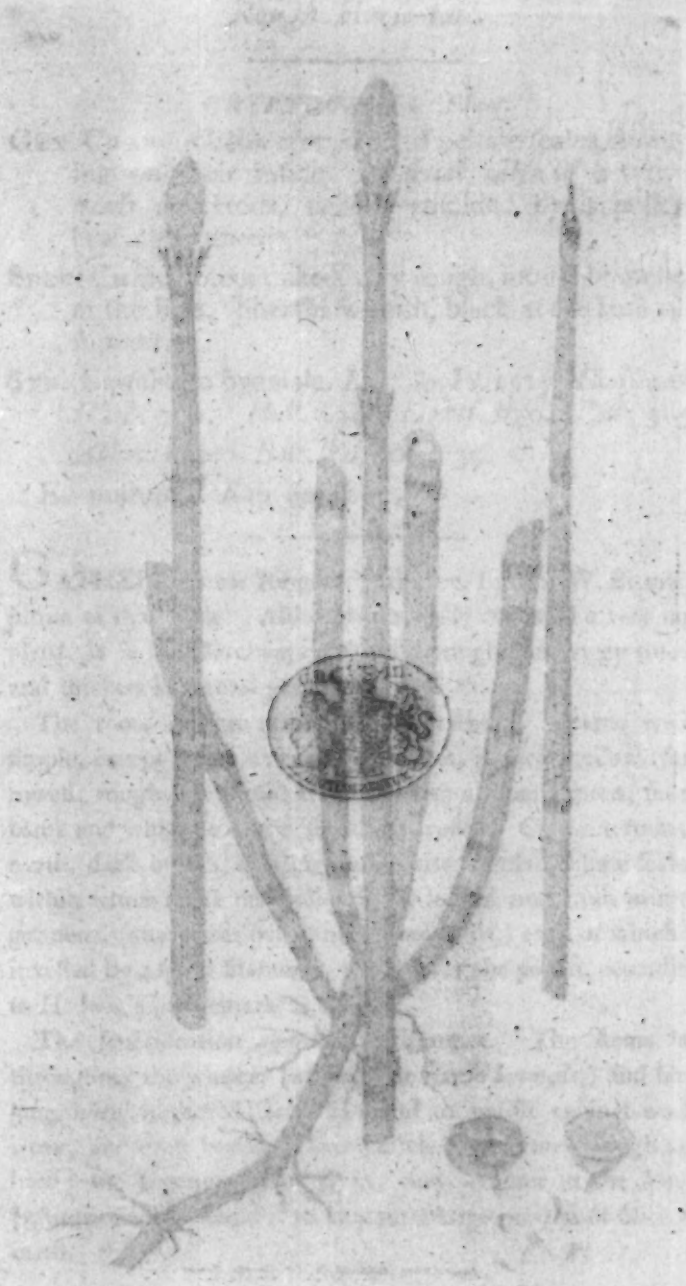
SYN. Carex ſtricta. *Gooden. Tr. of Linn. Soc. v.* 2. 196. *t.* 21. *f.* 9. *Sm. Fl. Brit.* 1000. *With.* 107. *Hull.* 208.

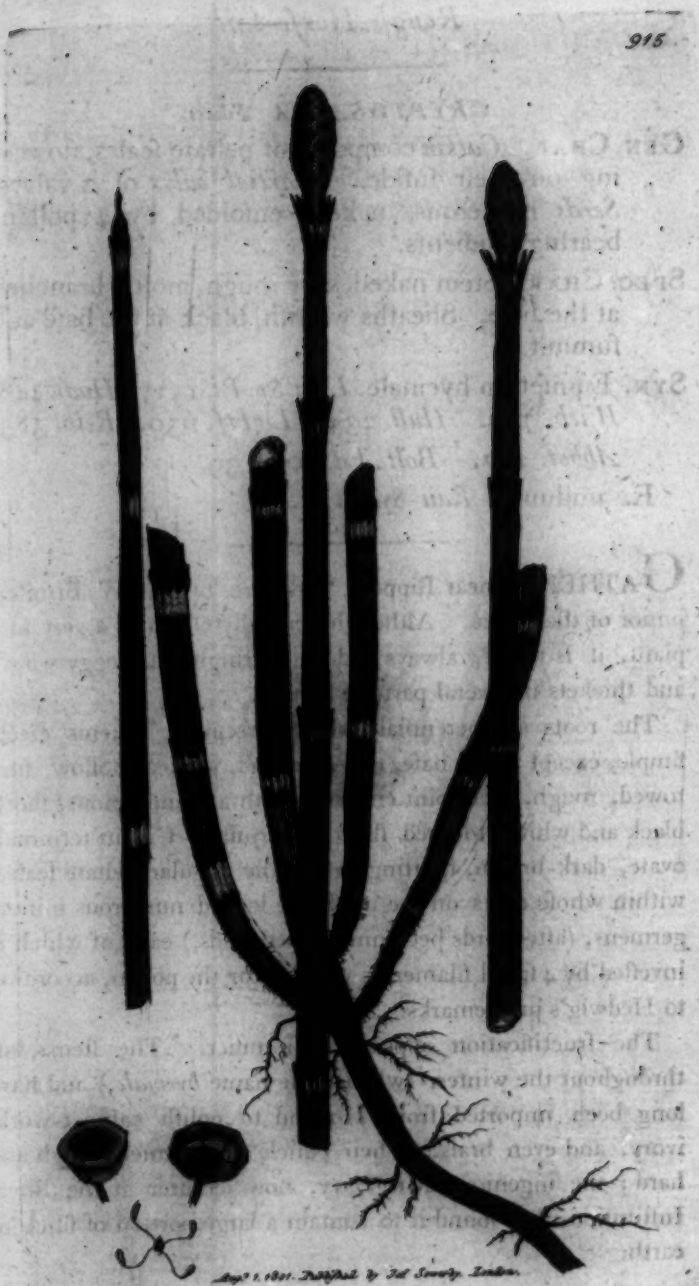
C. cæſpitoſa. *Hudſ.* 412. *Lightf.* 561, β.

Gramen cyperoides foliis caryophylleis, ſpicis erectis ſeſſilibus, e ſeminibus confertis compoſitis. *Raii Syn.* 418.

THIS *Carex*, though known to Ray, has not been generally diſtinguiſhed by modern botaniſts from the *cæſpitoſa*, till Dr. Goodenough clearly diſcriminated them in his excellent paper. They agree in having only 2 ſtigmas, no ſheaths to their bracteæ, and ſpikes nearly ſeſſile; but the *ſtricta* is twice as large as the *cæſpitoſa*, its leaves more glaucous (or pink-like, as Ray expreſſes it), capſules deciduous, more conſtantly in 8 rows, and it flowers in April, a month before the *cæſpitoſa*. The root is creeping. Stem about 2 feet high, ſharply triangular, rough upwards. Leaves erect and ſtraight, as are alſo the ſpikes. It often produces 2 male ſpikes, and ſhould then be placed in the ſame ſection with *C. acuta*, which has alſo but 2 ſtigmas, but which is diſtinguiſhed by its drooping ſpikes, 2 or 3 of which are male.

C. ſtricta grows in marſhy places not unfrequently. Mr. Pitchford found it near Norwich. We have received it from Cambridge by favour of the Rev. Mr. Holme.





Aug.1.1801. Published by Jas Sowerby London.

EQUISETUM hyemale.

Rough Horſe-tail.

CRYPTOGAMIA Filices.

GEN. CHAR. *Catkin* compoſed of peltate ſcales, flowering on their inſide. *Partial calyx* of 2 valves. *Seeds* numerous, naked, enfolded by 4 pollen-bearing filaments.

SPEC. CHAR. Stem naked, very rough, moſtly branched at the baſe. Sheaths whitiſh, black at the baſe and ſummit.

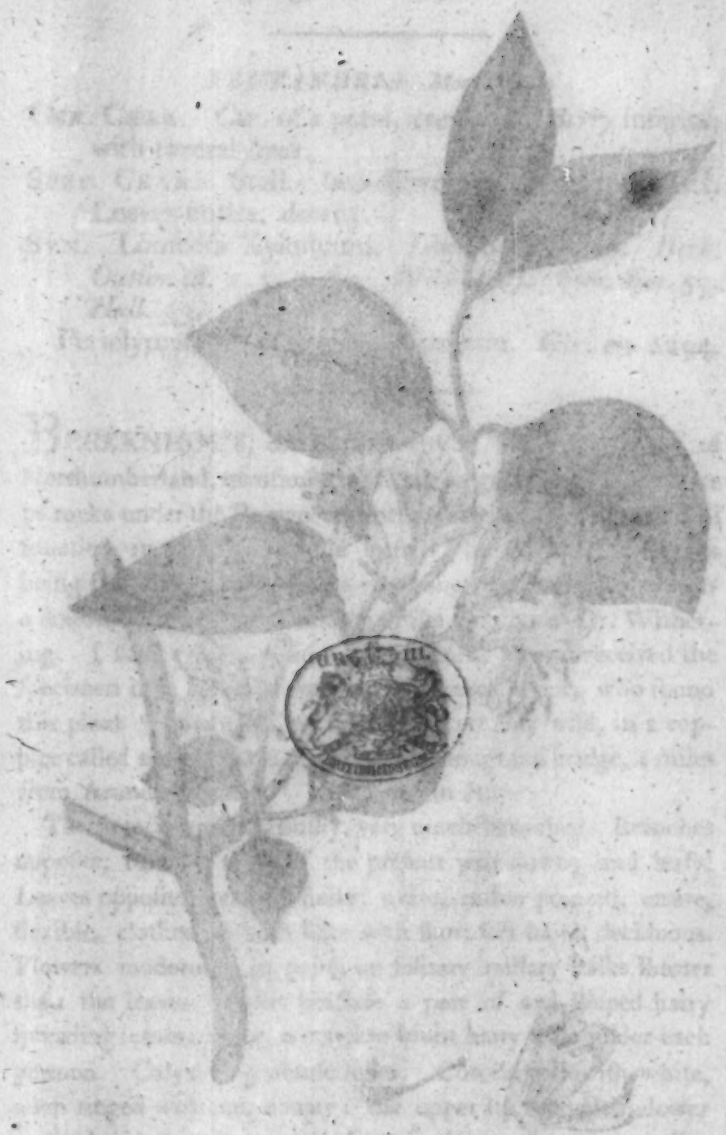
SYN. Equiſetum hyemale. *Linn. Sp. Pl.* 1517. *Hudſ.* 448. *With.* 756. *Hull.* 234. *Lightf.* 650. *Relh.* 385. *Abbot.* 222. *Bolt. Fil.* 70. *t.* 39.

E. nudum. *Raii Syn.* 131.

GATHERED near Rippon, Yorkſhire, by Mr. W. Brunton junior of that place. Although generally eſteemed a very rare plant, it is found, always indeed ſparingly, in boggy woods and thickets in ſeveral parts of Britain.

The roots are perennial, black, creeping. Stems erect, ſimple, except at the baſe, naked, round, jointed, hollow, furrowed, rough, each joint encircled with a membranous, ſhort, black and white, toothed ſheath or ruffle. Catkin terminal, ovate, dark-brown, ſplitting into many angular peltate ſcales, within whoſe clefts on the inſide are lodged numerous minute germens, (afterwards becoming naked ſeeds,) each of which is inveſted by 4 ſpiral filaments, which bear the pollen, according to Hedwig's juſt remarks.

The fructification appears in ſummer. The ſtems laſt throughout the winter, (whence the name *hyemale*,) and have long been imported from Holland to poliſh cabinet-work, ivory, and even braſs. Their cuticle is extremely rough and hard; the ingenious Mr. Davy, now lecturer at the Royal Inſtitution, has found it to contain a large portion of ſiliceous earth.





Augt 1. 1801. Published by Jas Sowerby, London.

LONICERA Xyloſteum.

Upright Honeyſuckle.

PENTANDRIA Monogynia:

GEN. CHAR. *Cor.* of 1 petal, irregular. *Berry* inferior, with ſeveral *ſeeds.*

SPEC. CHAR. Stalks two-flowered. Berries diſtinct. Leaves entire, downy.

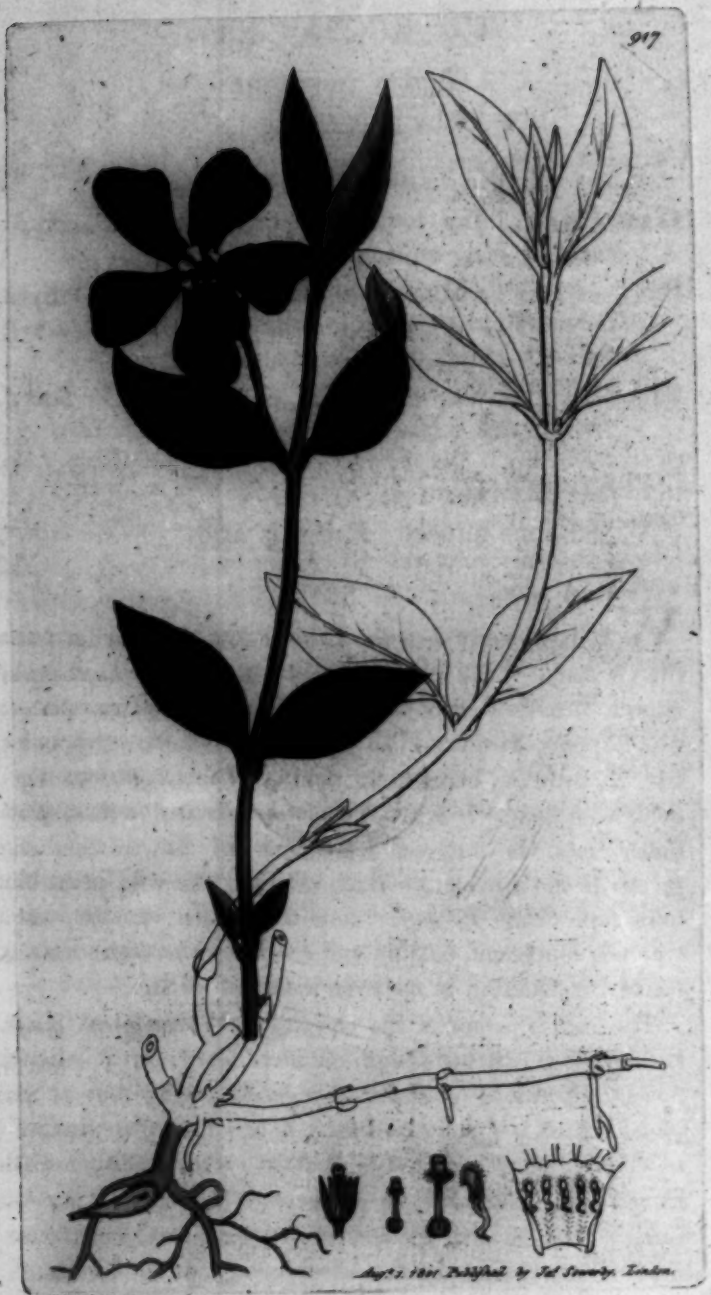
SYN. Lonicera Xyloſteum. *Linn. Sp. Pl.* 248. *Berk. Outlin. ed.* 1. *v.* 2. 60. *With.* 247. *Sym. Syn.* 59. *Hull.* 53.

Periclymenum rectum germanicum. *Ger. em.* 1294.

BERKENHOUT, on the authority of Wallis's Hiſtory of Northumberland, mentions this ſhrub as growing in the fiſſures of rocks under the Roman wall near Shewing-Sheels, a kind of ſituation in which it ſhould ſeem to be truly wild: but its being frequent in gardens has made me conſider it hitherto as a doubtful native, notwithſtanding the opinion of Dr. Withering. I ſhall no longer diſpute the point, having received the ſpecimen here figured from Mr. W. Borrer junior, who found this plant "growing plentifully, and certainly wild, in a coppice called the Hacketts, to the eaſt of Houghton bridge, 4 miles from Arundell, Suſſex." It flowers in July.

The ſtem is upright, buſhy, very much branched. Branches oppoſite, round; thoſe of the preſent year downy and leafy. Leaves oppoſite, on foot-ſtalks, ovate, rather pointed, entire, flexible, clothed on both ſides with ſhort ſoft hairs, deciduous. Flowers inodorous, in pairs, on ſolitary axillary ſtalks ſhorter than the leaves. Outer bracteæ a pair of awl-ſhaped hairy ſpreading leaves; inner, a concave blunt hairy ſcale under each germen. Calyx in 5 obtuſe lobes. Corolla yellowiſh white, often tinged with red, downy; the upper lip four-cleft, lower undivided. Stamina equal, downy, ſhorter than the corolla. Berries oval, red, ſeparate, of one cell, juicy, containing 6 or more ſeeds.


VINCA minor
Lesser Periwinkle.



Augst 1 1811 Published by Sol Stowdy London

VINCA minor.

Leſſer Periwinkle.

PENTANDRIA Monogynia.

GEN. CHAR. *Cor.* twiſted, ſalver-ſhaped. *Pouches* 2, erect. *Seeds* without beard or wing.

SPEC. CHAR. Stems procumbent. Leaves elliptic-lanceolate, ſmooth at the edge. Flowers on ſtalks. Calyx-teeth lanceolate.

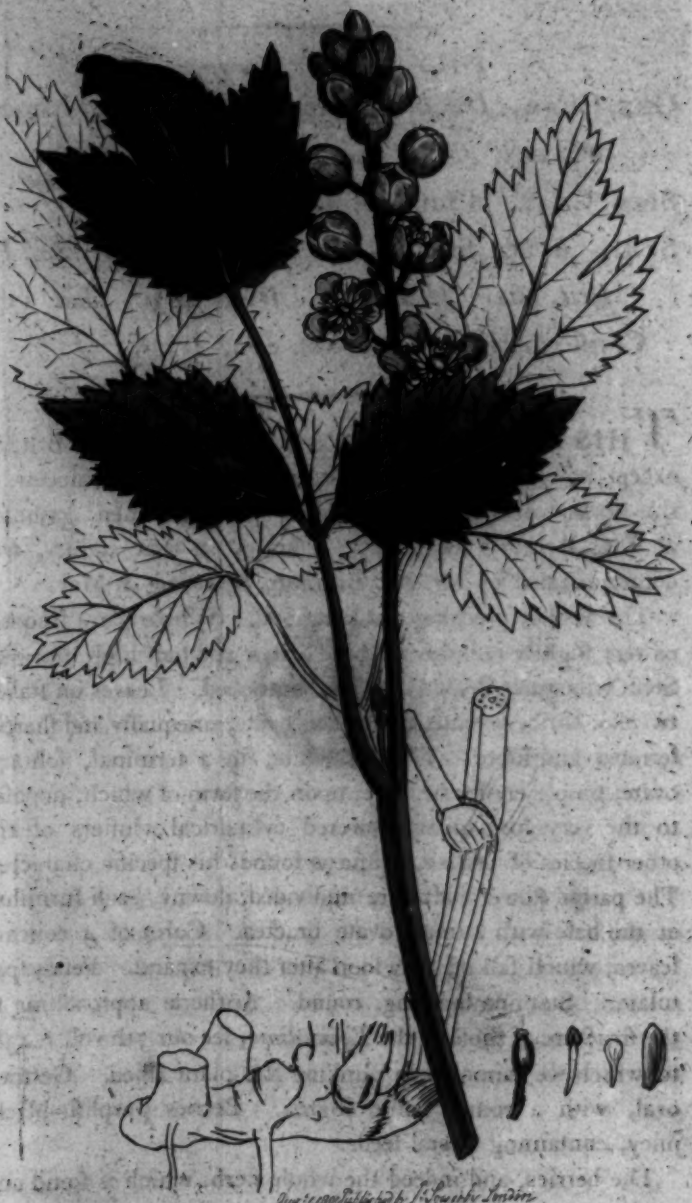
SYN. Vinca minor. *Linn. Sp. Pl.* 304. *Sm. Fl. Brit.* 270. *Hudſ.* 91. *With.* 268. *Hull.* 51. *Relh.* 89. *Sibth.* 79. *Abbot.* 53. *Curt. Lond. faſc.* 3. *t.* 16.

V. pervinca minor. *Raii Syn.* 268.

WE have never ſeen the Leſſer Periwinkle (far rarer than the Greater, *t.* 514) more truly wild than about Honingham church, 6 miles weſt of Norwich. Our ſpecimen was gathered near Rippon, Yorkſhire, by the Rev. Mr. Dalton, and ſent by Mr. W. Brunton, being in the opinion of thoſe gentlemen perfectly wild there. It is very generally cultivated in ſhady places under trees, its evergreen leaves and early flowers conducing greatly to the ornament of ſuch places. The wild plant bloſſoms earlier than *V. major*; and the garden varieties, one of which is double and reddiſh, and another white with variegated leaves, are found in bloom even in March or April.

The root is perennial and creeping. Whole plant ſmooth and ſhining. Stems round, ſlender, leafy; erect when in flower, afterwards proſtrate, elongated, taking root at their joints. Leaves oppoſite, on ſhort ſtalks, lanceolate inclining to elliptic, entire, of a full ſhining green, deſtitute of the fringed edge obſervable in *V. major*. The flowers are alſo ſmaller than in that ſpecies, of a rather darker blue, with a much ſhorter, ſmooth, and leſs tapering calyx. The fruit of this ſpecies we have never ſeen.





Engraved Published by J. Sowerby London

ACTÆA ſpicata.

Herb Chriſtopher; or Bane Berries.

POLYANDRIA Monogynia.

GEN. CHAR. *Cal.* of 4 leaves. *Pet.* 4. *Berry* ſuperior, of 1 cell. *Seeds* numerous, flat.

SPEC. CHAR. Cluſter of flowers ovate.

SYN. Actæa ſpicata. *Linn. Sp. Pl.* 722. *Sm. Fl. Brit.* 562. *Hudſ.* 228. *With.* 483. *Hull.* 115. Chriſtophoriana. *Raii Syn.* 262.

THIS very rare plant is ſcarcely to be met with in Britain, except among the wild mountainous woods and thickets of the north-weſt part of Yorkſhire. Our ſpecimen, gathered at King Arthur's force, near Aſkrigg, in that county, was communicated by Mr. W. Brunton, flowering in May.

The root is creeping and perennial. Whole plant ſmooth, or very ſlightly pubeſcent, about a foot and half high, upright. Stem triangular, leafy, but little branched. Leaves on ſtalks, twice or thrice ternate, the leaflets ovate, unequally and ſharply ſerrated and lobed. Flowers white, in a terminal, ſolitary, ovate, ſimple cluſter or ſpike, upon the form of which, oppoſed to the very long many-flowered cylindrical cluſters of the other ſpecies of *Actæa*, Linnæus founds his ſpecific character. The partial flower-ſtalks are undivided, downy, each furniſhed at the baſe with a ſmall ovate bractea. Calyx of 4 concave leaves, which fall off very ſoon after they expand. Petals ſpatulate. Stamina tapering, round. Antheræ approaching to the ſtructure of thoſe of the *Epimedium*, ſee our 7th vol. *t.* 438, to which we cannot help thinking this plant allied. Germen oval, with a round ſeſſile ſtigma. Berries purpliſh-black, juicy, containing ſeveral ſeeds.

The berries, and indeed the whole herb, which is fœtid and nauſeous, are univerſally allowed to be poiſonous.





Sold as published by J. Sowerby, London.

SCIRPUS ſylvaticus.
Wood Club-ruſh.

TRIANDRIA Monogynia.

GEN. CHAR. *Glumes* chaffy, imbricated every way, all fertile. *Cor.* none. *Seed* 1.

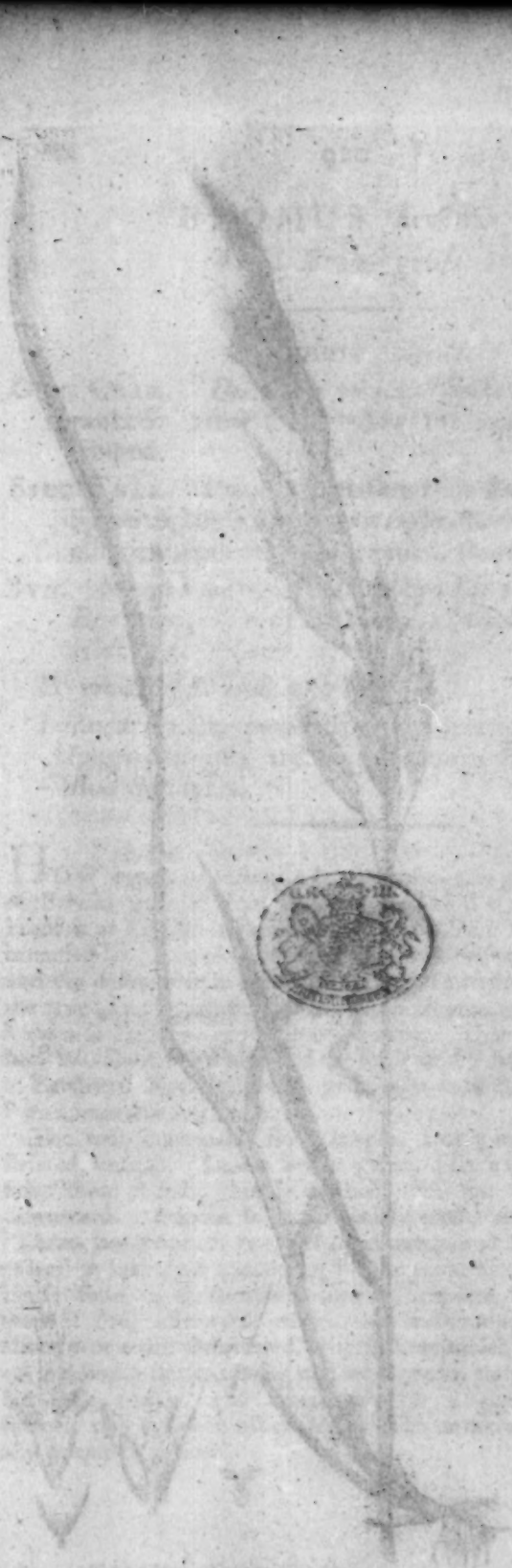
SPEC. CHAR. Stem triangular, leafy. Cyme leafy, terminal: its ſtalks naked and repeatedly ſubdivided. Spikes cluſtered.

SYN. Scirpus ſylvaticus. *Linn. Sp. Pl.* 75. *Sm. Fl. Brit.* 57. *Hudſ.* 21. *With.* 77. *Hull.* 14. *Sibth.* 24.

Cyperus gramineus. *Raii Syn.* 426.

MR. GROULT, a very aſſiduous inveſtigator of Engliſh plants, gathered this ſpecimen of the *Scirpus ſylvaticus* between Hampſtead and Highgate. It is perennial, flowers in June and July, and loves moiſt ſhady ſituations, but is by no means frequently to be met with.

Root fibrous. Stem 3 feet or more in height, ſimple, erect, leafy, triangular, ſmooth. Leaves linear, broad, taper-pointed, ſtrongly ribbed, ſmooth, except the margin of the uppermoſt; the radical ones numerous, forming a denſe tuft; the others alternate. Panicle cymoſe, ſpreading, repeatedly branched, the ſtalks rough, each accompanied by a ſheathing bractea at its baſe. Spikes terminal, moſt of them cluſtered, ſmall, ovate. Glumes ovate, entire, bluntiſh, keeled, green with a tinge of brown towards the extremity. Stamina ſlender. Style deeply three-cleft. Seed orbicular, with 3 angles, compreſſed, whitiſh, ſmooth, its baſe enveloped with 6 or 8 briſtles twice as long as the ſeed when arrived at maturity.





Feb.ʳ 1.1801 Published by J.ᵉ Sowerby London

BROMUS arvenſis.

Field Brome-graſs.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves. *Spikelet* oblong, 2-ranked. *Awn* from below the top. *Inner huſk* fringed.

SPEC. CHAR. Panicle ſpreading: its ſtalks branched. Spikelets lanceolate, about eight-flowered. Florets elliptical, imbricated, depreſſed, ſmoothiſh.

SYN. Bromus arvenſis. *Linn. Sp. Pl.* 113. *Sm. Fl. Brit.* 130. *Tr. of L. Soc. v.* 4. 289. *With.* 162. *Hull.* 25. *Leers. t.* 11. *f.* 3.

B. erectus *β. Hudſ.* 50?

Feſtuca elatior, paniculis minùs ſparſis, locuſtis oblongis ſtrigoſis ariſtatis purpureis ſplendentibus. *Raii Syn.* 414.

HOW much uncertainty has attended this graſs as a native of Britain may be ſeen in Withering. We doubt whether Hudſon or Lightfoot ever knew it. *Fl. Dan. t.* 293. may be intended for an awnleſs variety; but we have never ſeen ſuch, and the pubeſcence is incorrect. Sherard's herbarium contains the true plant, gathered by him near Southampton, and well known to Dillenius, as well as Linnæus. Our accurate friend Mr. Woodward firſt obſerved the ſame in the borders of a field at Earſham, Norfolk, many years ago, and ſupplied us with freſh ſpecimens laſt June.

The root is annual. Stem ſimple, 2 or 3 feet high, leafy, ſtriated, ſmooth. Leaves bright-green, a little downy on each ſide, their ſheaths thickly clothed with ſoft hairs pointing downwards. Stipula ſhort. Panicle erect, many-flowered; its branches whorled, many of them compound and ſubdivided, at leaſt in luxuriant ſpecimens, for the plant often grows much larger than in thoſe now before us. Spikes lanceolate and erect at firſt, afterwards more ovate and drooping, formed of about 8 or more imbricated, elliptical, depreſſed (not cylindrical or diſtant) florets, variegated with green, purple, and white, but little downy, and remarkable for a gloſſy appearance ſcarcely obſervable in other *Bromi*. The antheræ are occaſionally purple or yellow.

BROMUS arvensis.

Field Brome-grass.

Gen. Char. Calyx of 2 valves. Spikelet oblong, ranked. Awn from below the top. Inner fringed.

Spec. Char. Panicle spreading: its flakes branched. Spikelets lanceolate, about eight-flowered. Florets elliptical, imbricated, awned, smoothish.

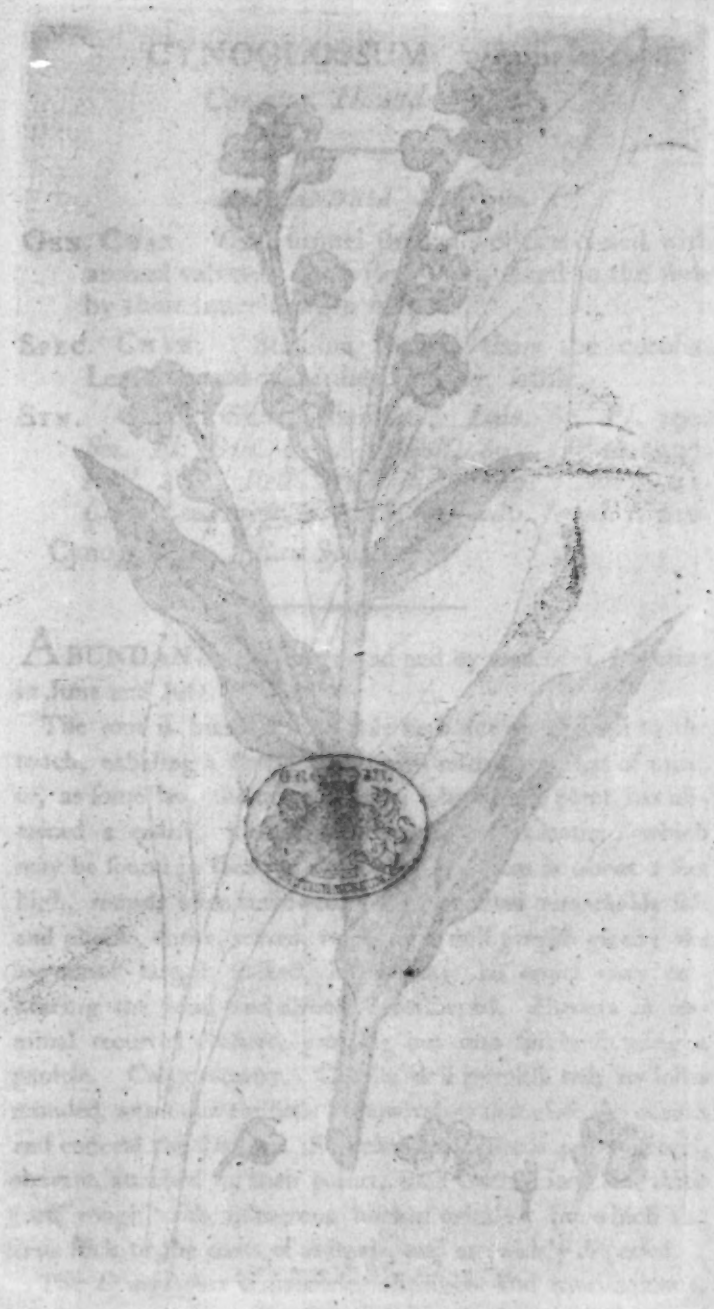
Syn. Bromus arvensis. Linn. Sp. Pl. 113. Sm. Fl. Brit. 130. Ten. & L. Syn. p. 289. With. 160. Hull. 85. Leers. n. 1174. 3.

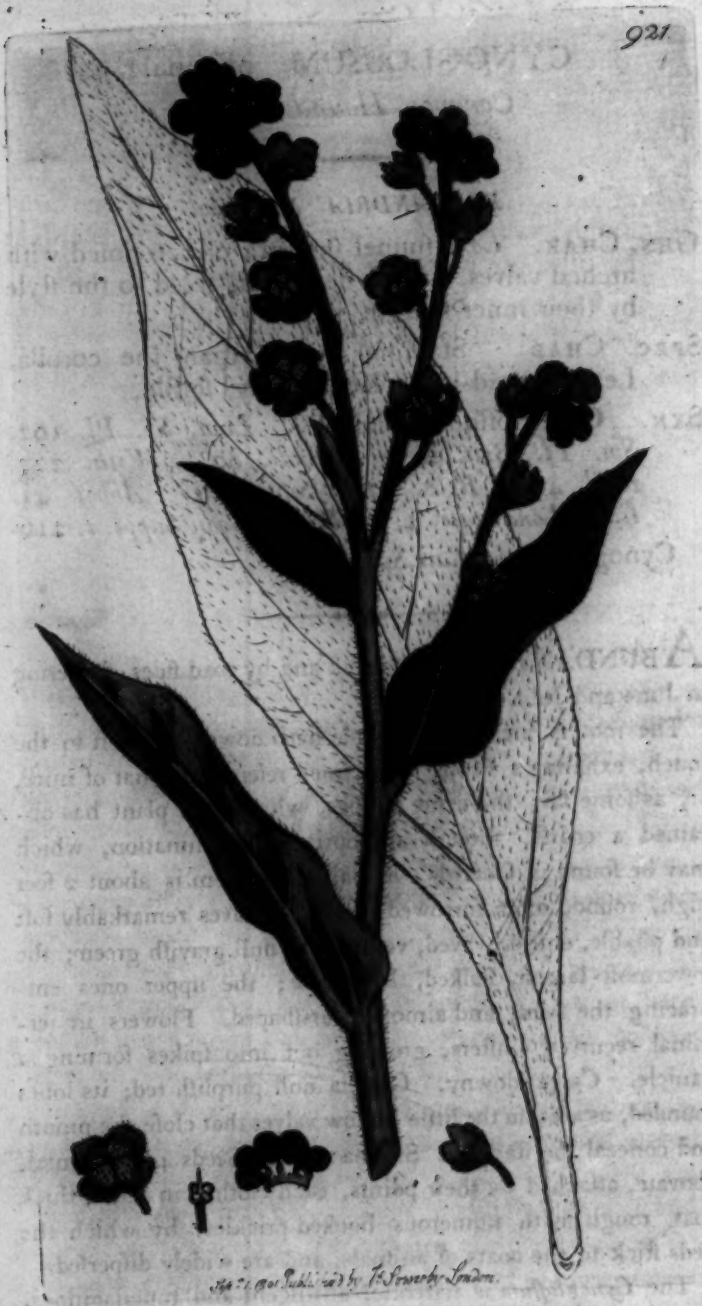
B. cretfgis B. Huds. 50?

Festuca elatior, paniculis utrinque spathaceis, locustis oblongis strigosis, aristis purpureis splendentibus. Ram. Syn. 414.

HOW much uncertainty has attended this grass as a native of Britain may be seen in Withering. We doubt whether Hudson or Lightfoot ever knew well. Fl. Dan. t. 209. may be intended for arvensis variety ; but we have never seen locusts and the pubescence is incorrect. Sherard's specimen contains the true plant, gathered by him near Southampton, and well known to Dillenius, as well as Linnæus. Our accurate friend Mr. Woodward first observed the latter in the borders of a field at Earlham, Norfolk, many years ago, and supplied us with fresh specimens last June.

The root is annual. Stem simple, 2 or 3 feet high, leafy, striated, smooth. Leaves bright-green, a little downy on each side, their sheaths thickly clothed with soft hairs pointing downwards. Stipula short. Panicle erect, many-flowered; its branches whorled, many of them compound and subdivided, at least in luxuriant specimens, for the plant often grows much larger than in thole now before us. Spikes lanceolate and erect at first, afterwards more open and drooping, formed of about 8 or more imbricated, elliptical, depressed (not cylindrical or distant) florets, variegated with green, purple, and white, but little downy, and remarkable for a gloffy appearance scarcely observable in other Bromi. The anthers are occasionally purple or yellow.





Pub. 1 Jan. 1801 by J. Sowerby, London.

CYNOGLOSSUM officinale.

Common Hounds-tongue.

PENTANDRIA Monogynia.

GEN. CHAR. *Cor.* funnel-ſhaped; orifice cloſed with arched valves. *Seeds* depreſſed, fixed to the ſtyle by their inner margin only.

SPEC. CHAR. Stamina ſhorter than the corolla. Leaves broad-lanceolate, downy, ſeſſile.

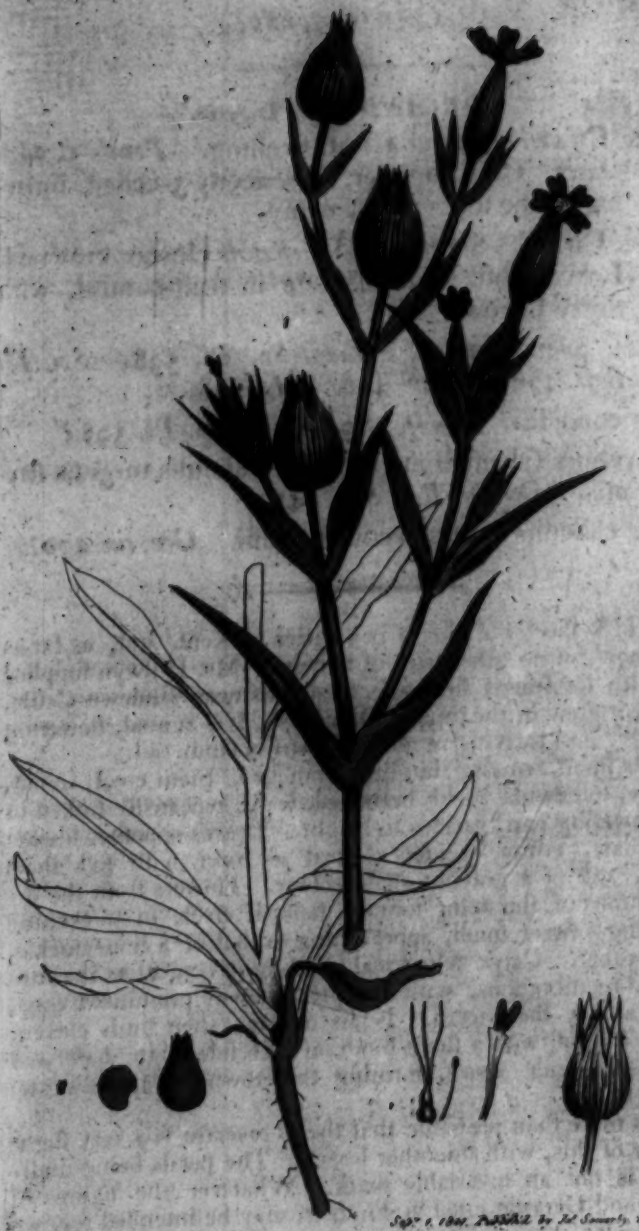
SYN. Cynogloſſum officinale. *Linn. Sp. Pl.* 192. *Sm. Fl. Brit.* 216. *Hudſ.* 80. *With.* 227. *Hull.* 46. *Relh.* 77. *Sibth.* 69. *Abbot.* 41. *Curt. Lond. faſc.* 4. *t.* 16. *Woodv. Suppl. t.* 216.
Cynogloſſum. *Raii Syn.* 226.

ABUNDANT in waſte ground and by road ſides, flowering in June and July.

The root is biennial. Whole herb downy and ſoft to the touch, exhaling a ſtrong fœtid ſmell reſembling that of mice, or, as ſome ſay, the urine of dogs, whence the plant has obtained a coarſe, though appropriate, denomination, which may be found in Gerarde's herbal. The ſtem is about 2 feet high, round, often furrowed, leafy. Leaves remarkably ſoft and pliable, entire, waved, veiny, of a dull grayiſh green; the lowermoſt largeſt, ſtalked, lanceolate; the upper ones embracing the ſtem, and almoſt heartſhaped. Flowers in terminal recurved cluſters, growing out into ſpikes forming a panicle. Calyx downy. Corolla dull purpliſh red, its lobes rounded, as are alſo the little hollow valves that cloſe the mouth and conceal the ſtamina. Stigma acute. Seeds 4, horizontal, obovate, attached by their points, each clothed in a flat, thick coat, rough with numerous hooked prickles, by which the ſeeds ſtick to the coats of animals, and are widely diſperſed.

The *Cynogloſſum* is narcotic, aſtringent and mucilaginous, but dangerous to be taken internally, at leaſt in quantity.





Sept. 1, 1841. Published by Sol Sowerby, London.

SILENE conica.

Corn Catchfly.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* of 1 leaf, ſwelling. *Petals* 5, with claws. *Capſ.* ſuperior, imperfectly 3-celled, burſting at the top. *Seeds* many.

SPEC. CHAR. Stem forked. *Petals* cloven, crowned. Leaves ſoft. Calyx when in fruit conical, with thirty furrows.

SYN. Silene conica. *Linn. Sp. Pl.* 598. *Sm. Fl. Brit.* 470. *With.* 416. *Hull.* 98.

S. conoidea. *Hudſ.* 189. *Linn. Sp. Pl.* 598?

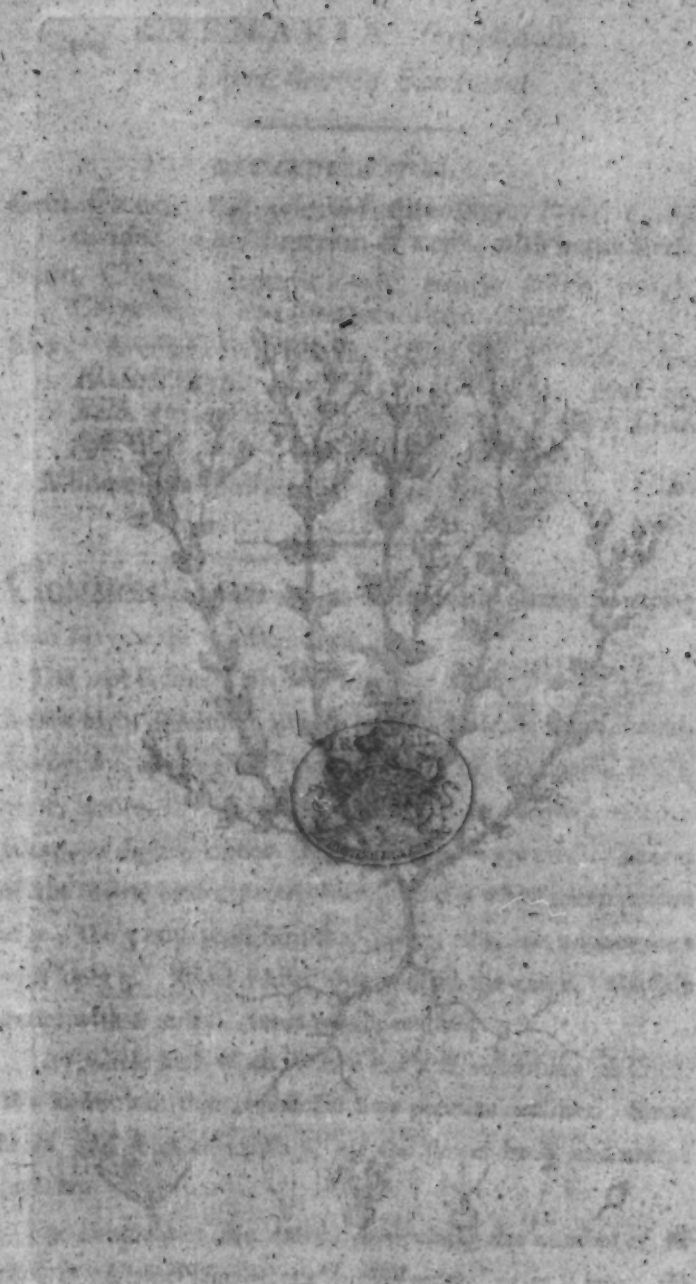
Lychnis ſylveſtris anguſtifolia, caliculis turgidis ſtriatis. *Dill. in Raii Syn.* 341.

L. caliculis ſtriatis, ſecunda Cluſii. *Ger. em.* 470.

THIS ſpecies of *Silene* is a native of Kent, but, as far as we know, of no other part of Britain. Mr. Dillwyn ſupplied us with ſpecimens from the ſand-hills near Sandown Caſtle, where it grew in the time of Dillenius. It is annual, flowering in July, and thriving in the moſt barren ſandy ſoil.

Root ſmall, tapering, but little branched. Stem erect, round, downy, ſomewhat viſcid, branched, leafy, repeatedly forked in the flowering part, various in height. Leaves oppoſite, linear-lanceolate, entire, acute, clothed all over with ſoft ſhort down, and of a grayiſh green colour. Flowers from the divarications of the ſtem, ſolitary, ſtalked, erect, in an evening exhaling a ſweet ſmell, approaching to that of a honeyſuckle, but weaker. Calyx cylindrical, becoming conical as the fruit ſwells, membranous, with 30 green downy prominent equal ribs, and 5 ſharp teeth. Petals narrow, their limb cloven, roſe-coloured, with a ſharp tooth on each ſide of the baſe, and a notched ſcale above, forming the crown. Capſule ovate. Seeds rough.

It is more than probable that the *S. conoidea* is a very ſlight variety of this, with ſmoother leaves. The petals being undivided is not an invariable mark. Whatever the figures of Lobel and Gerarde cited in *Fl. Brit.* may be intended for, we now prefer that of Gerarde above quoted as the moſt exact repreſentation.





ARENARIA ſerpyllifolia.

Thyme-leaved Sandwort.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* 5-leaved, ſpreading. *Petals* 5, undivided. *Capſ.* ſuperior, of 1 cell, with many ſeeds.

SPEC. CHAR. Leaves ovate, nearly ſeſſile, rough. Calyx hairy, its outer leaves five-ribbed.

SYN. Arenaria ſerpyllifolia. *Linn. Sp. Pl.* 606. *Sm. Fl. Brit.* 479. *Hudſ.* 191. *With.* 421. *Hull.* 95. *Relh.* 171. *Sibth.* 142. *Abbot.* 97. *Curt. Lond. faſc.* 4. *t.* 32. *Dickſ. H. Sicc. faſc.* 16. 3.

Alſine minor multicaulis. *Raii Syn.* 349.

COMMON on walls and in barren waſte places, flowering from May to the middle of July.

The root is ſmall, fibrous, annual. Stems ſeveral, 3 or 4 inches high, ſpreading, a little branched, leafy, rigid, round, downy, forked upwards, ſet with ſeveral pairs of oppoſite, ſmall, ovate, entire, thyme-like leaves, which are roughiſh on both ſides, and ſlightly ribbed. Flower-ſtalks always erect. Leaves of the calyx ovate, acute, hairy, with a white membranous edge; the 3 outermoſt furniſhed with 5 ribs, the 2 inner ones with only 3. Petals white, ſhorter than the calyx. Capſule ovate, with 6 teeth. Seeds rough, reddiſh.

The whole herb when rubbed has a faint herbaceous ſmell. We know not that it poſſeſſes any peculiar qualities. Small birds, and ſome caterpillars, eat the flower-buds and unripe capſules.

The ſtructure of the calyx, particularly the number of its ribs, is of great importance in this genus, as in *Linum*, for diſcriminating the ſpecies.

ARENARIA. Hexp-hifolia.

Thyme-leaved Sandwort.

DECANDRIA Trigynia.

GEN. CHAR. Cal. 5-leaved, spreading. Petals 5, undivided. Caps. superior, of 1 cell, with many seeds.

SPEC. CHAR. Leaves ovate, nearly sessile, rough. Calyx hairy, its outer leaves five-ribbed.

SYN. Arenaria hexp-hifolia. Linn. Sp. Pl. 606. Sm. Fl. Brit. 479. Lightf. 301. Relh. 422. Hull. 95. Relh. 171. Sibth. 142. Walter. 97. Curt. Lond. fol. 4. 32. Dill. Elth. 16. 3.

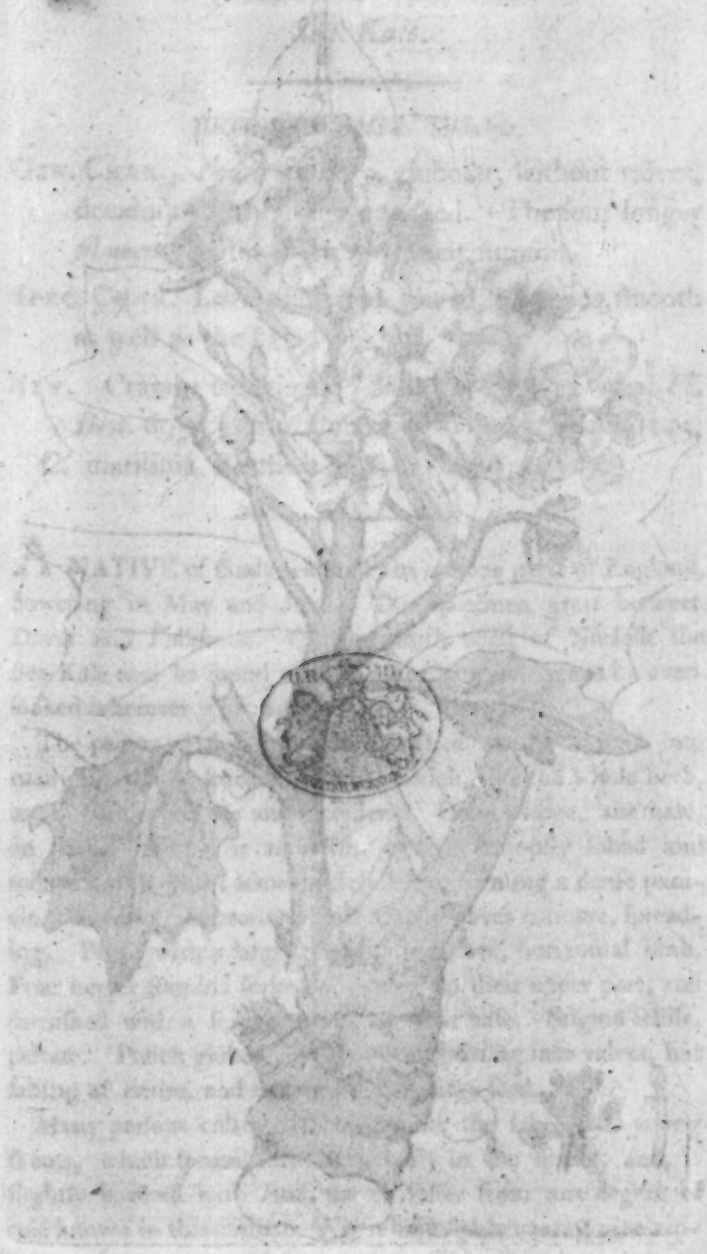
Alsine minor multicaulis. Ray Syn. 349.

COMMON on walls and in barren waste places, flowering from May to the middle of July.

The root is small, fibrous, annual. Stems several, 3 or 4 inches high, spreading, a little branched, nearly sessile, rough, downy, forked-upwards, for with several pairs of opposite, small, ovate, entire, thyme-like leaves, which are roughish on both sides, and slightly ribbed. Flower-stalks downy and small. Leaves of the calyx ovate, acute, hairy, with a white membranous edge; the 3 outermost furnished with 5 ribs, the 2 inner ones with only 3. Petals white, shorter than the calyx. Capsule ovate, with 6 teeth. Seeds rough, reddish.

The whole herb when rubbed has a faint herbaceous smell. We know not that it possesses any peculiar qualities. Small birds, and some caterpillars, eat the flower-buds and unripe capsules.

The structure of the calyx, particularly the number of its ribs, is of great importance in this genus, as in Linum, for discriminating the species.





Oct.1.1801. Published by J.Sowerby London.

CRAMBE maritima.
Sea Kale.

TETRADYNAMIA Siliculoſa.

GEN. CHAR. *Pouch* leathery, globular, without valves, deciduous, containing one ſeed. The four longer *filaments* with a tooth near their ſummit.

SPEC. CHAR. Leaves ſinuated, waved, glaucous, ſmooth as well as the ſtem.

SYN. Crambe maritima. *Linn. Sp. Pl.* 937. *Sm. Fl. Brit.* 695. *Hudſ.* 299. *With.* 563. *Hull.* 143. C. maritima, Braſſicæ folio. *Raii Syn.* 307.

A NATIVE of ſandy ſea ſhores in various parts of England, flowering in May and June. Our ſpecimen grew between Dover and Folkſtone. On the north coaſt of Norfolk the Sea Kale may be found in abundance, and it cannot be overlooked wherever it grows.

The perennial fleſhy root is branched at the ſummit into many branching ſpreading ſtems, which, like the whole herb, are ſmooth, glaucous and ſucculent. Leaves large, alternate, on ſtalks, oblong or roundiſh, waved, variouſly lobed and toothed. Corymbi terminal, cluſtered, forming a denſe panicle. Flowers numerous, white. Calyx-leaves concave, ſpreading. Petals with a large, roundiſh, notched, horizontal limb. Four longer ſtamina forked or toothed in their upper part, and furniſhed with a ſolitary gland at their baſe. Stigma ſeſſile, peltate. Pouch globoſe, fleſhy, never ſplitting into valves, but falling off entire, and containing one large ſeed.

Many perſons cultivate this plant for the ſake of its young ſhoots, which ſprout forth very early in the ſpring, and, if ſlightly covered with ſand, never ſuffer from any degree of cold known in this climate. When boiled they are not much inferior to aſparagus, which they ſomewhat reſemble in flavour.

CRAMBE maritima.

Sea Kale.

Gen. Char. Pod leathery, globular, without valves, dehiscent, containing one seed. The flower longer than the cup, with a tooth near their summit.

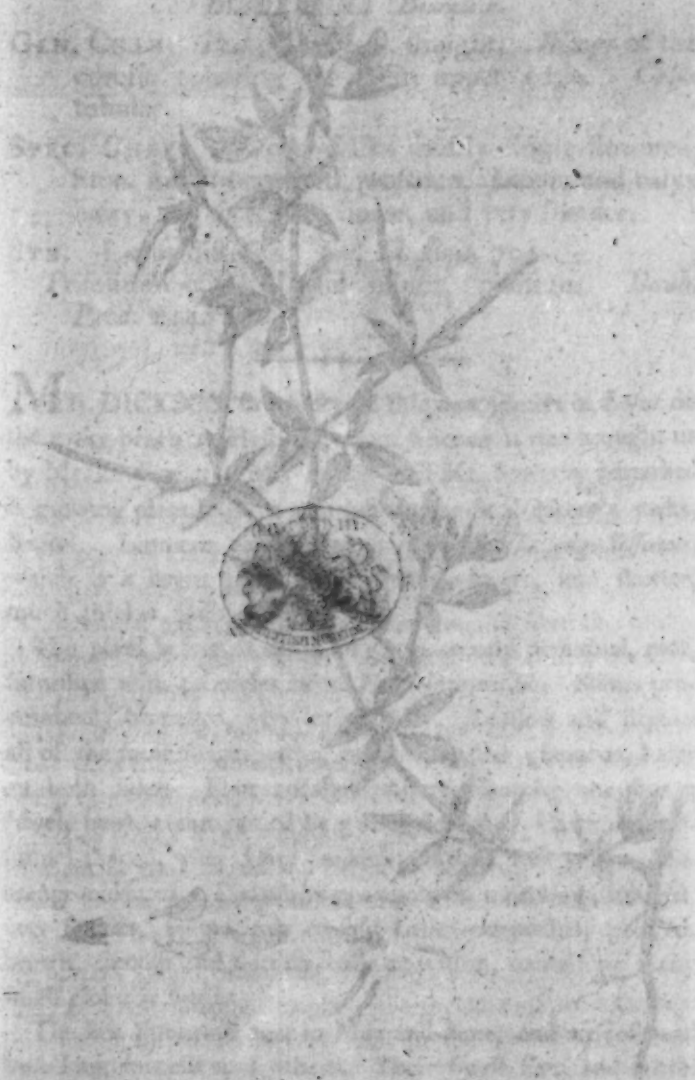
Spec. Char. Leaves lanceolate, waved, glaucous, smooth as well as the stem.

Syn. Crambe maritima. Linn. Sp. Pl. 932. Sm. Fl. Brit. 695. Huds. 290. With. 565. Fl. Dan. 143.
C. maritima, Brassica folio. Raii Syn. 307.

A NATIVE of sandy sea shores in various parts of England, flowering in May and June. Our specimen grew between Dover and Folkstone. On the north coast of Norfolk the Sea Kale may be found in abundance, and it cannot be overlooked wherever it grows.

The perennial fleshy root is furnished at the summit into many branching spreading stems, which, like the whole herb, are smooth, glaucous and succulent. Leaves large, alternate, on fleshy, oblong, or roundish, waved, variously lobed and toothed. Corymbs terminal, dilated, forming a dense panicle. Flowers numerous, white. Calyx-leaves concave, spreading. Petals with a large, roundish, notched, horizontal limb. Four longer stamina forked or toothed in their upper part, and furnished with a foliaceous gland at their back. Stigma sessile, peltate. Pouch globose, fleshy, never splitting into valves, but falling off entire, and containing one large seed.

Many persons cultivate this plant for the sake of its young shoots, which sprout forth very early in the spring, and, if highly covered with sand, never suffer from any degree of cold known in this climate. When boiled they are not much inferior to asparagus, which they somewhat resemble in flavour.





Sept 2 1801. Published by Jas Sowerby London.

LOTUS diffuſus.

Slender Bird's-foot Trefoil.

DIADELPHIA Decandria.

GEN. CHAR. *Pod* cylindrical, ſtraight. *Wings* of the corolla cohering by their upper edge. *Calyx* tubular.

SPEC. CHAR. Flower-ſtalks moſtly ſingle-flowered. Stem much branched, proſtrate. Leaves and calyx hairy. Pods round, linear, and very ſlender.

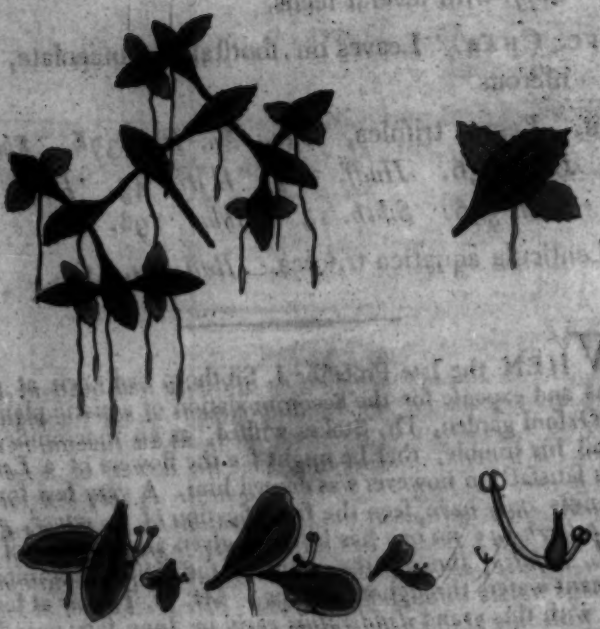
SYN. Lotus diffuſus. *Sm. Fl. Brit.* 794.
Trifolium corniculatum minus, piloſum. *Baub. Prod.* 144.

MR. DICKSON firſt obſerved this new ſpecies of *Lotus* on the rocky beach at Haſtings, from whence it was brought us by Mr. E. Forſter. Mr. Turner and Mr. Sowerby remarked it growing plentifully in a meadow near St. Vincent's rocks, Briſtol. Linnæus confounded it with his *L. anguſtiſſimus*, which is a larger plant, with ſmooth leaves, and ſhorter, much thicker, pods.

The plant before us has a long, apparently perennial, root, furniſhed with tubercles as in *Vicia lathyroides*. Stems procumbent, branched, very leafy, hairy. Leaflets and ſtipulæ all of the ſame ſhape, ovate, pointed, rather glaucous, hairy on both ſides. Flower-ſtalks axillary, bearing one flower (rarely two), accompanied by 3 ſeſſile leaflets. Calyx ſlender-funnel-ſhaped, very hairy, reddiſh. Petals full yellow, not orange-coloured. Pod when ripe above an inch long, ſtraight, very ſlender, cylindrical, or but little compreſſed, pointed, brown, ſmooth and ſhining, cellular within, containing many ſmall globular ſeeds.

The firſt flowers appear in May and June, and are followed by a long ſucceſſion of others. Their ſmall ſize, and nearly ſolitary mode of growth, readily diſtinguiſh this ſpecies from the common one. The ſpecific name was given by Dr. Solander, who deſcribed ſpecimens gathered in Madeira.





Sept.r 1. 1801. Published by Jas Sowerby London.

LEMNA triſulca.

Ivy-leaved Duck-weed.

MONOECIA Diandria.

GEN. CHAR. Male, *Cal.* of 1 leaf. *Cor.* none. Female, *Cal.* of 1 leaf. *Cor.* none. *Style* 1. *Capſ.* with ſeveral ſeeds.

SPEC. CHAR. Leaves on footſtalks, lanceolate, proliferous.

SYN. Lemna triſulca. *Linn. Sp. Pl.* 1376. *Sm. Fl. Brit.* 956. *Hudſ.* 399. *With.* 43. *Hull.* 202. *Relh.* 346. *Sibth.* 14. *Abbot.* 198.

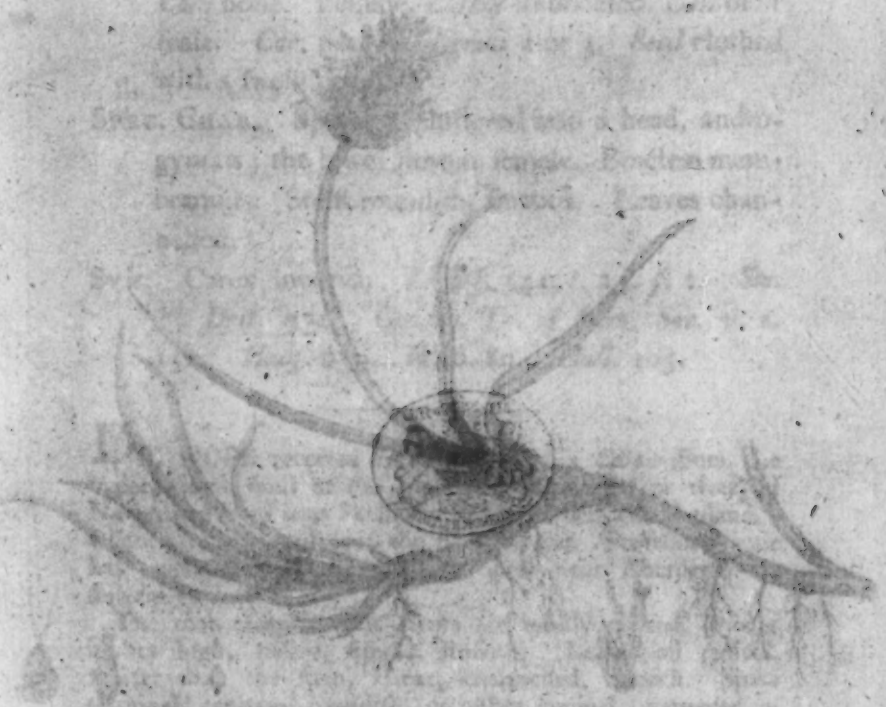
Lenticula aquatica triſulca. *Raii Syn.* 129.

WHEN the late Profeſſor J. Sibthorp had been at great pains and expenſe for the accommodation of aquatic plants in the Oxford garden, Dr. Stokes wiſhed, as an indemnification for all his trouble, that he might ſee the flowers of a *Lemna*. This ſatisfaction however was denied him. A very few foreign botaniſts only have ſeen the fructification of *L. minor*, *gibba* and *polyrrhiza*; no one has hitherto given any account of that of *L. triſulca*, though the plant is ſufficiently common in ſtagnant waters throughout Europe. Mr. D. Turner at length met with this grand *deſideratum* early in June laſt near Yarmouth, and we cannot withhold it from the public.

L. triſulca is a pale-green, ſmooth, pellucid herb, floating in freſh water, near or upon the ſurface, and conſiſts of ſeveral lanceolate, entire, ſometimes waved or toothed, leaves or fronds, each having a footſtalk at its baſe, and producing, from its centre beneath, one ſolitary ſimple root, and a pair of young leaves, looking like lobes of the old one. The root is tipped with a membranous ſheath. The flowers ſpring from a lateral chink, whoſe margin forms the calyx. Moſt of the flowers we have ſeen are males, having 2 aſcending white ſmooth ſtamina, each with a 2-lobed yellow anthera. In ſome an ovate ſuperior germen ſtands between the ſtamina, bearing a ſimple ſtyle, with a cloven ſtigma. We have not detected any flowers purely female.

CAREX. Incurva.

Curved Carex.





CAREX incurva.

Curved Carex.

MONOECIA Triandria.

GEN. CHAR. Male, *Catkin* imbricated. *Cal.* of 1 ſcale. *Cor.* none. Female, *Catkin* imbricated. *Cal.* of 1 ſcale. *Cor.* none. *Stigmas* 2 or 3. *Seed* clothed with a ſwelling tunic.

SPEC. CHAR. Spikelets cluſtered into a head, androgynous; the lower flowers female. Bracteæ membranous. Stem roundiſh, ſmooth. Leaves channelled.

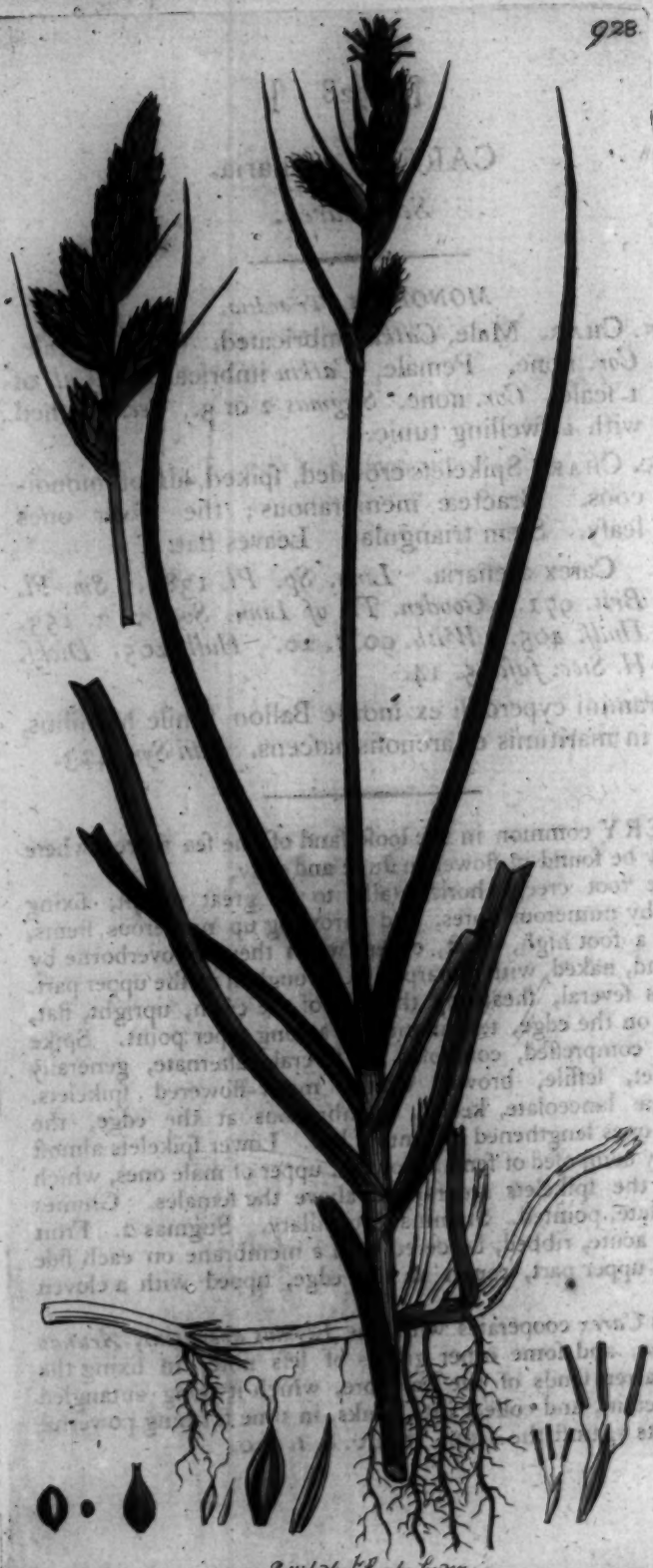
SYN. Carex incurva. *Lightf.* 544. *t.* 24. *f.* 1. *Sm. Fl. Brit.* 971. *Gooden. Tr. of Linn. Soc. v.* 2. 152. *Hudſ.* 650. *With.* 89. *Hull.* 205.

DR. HOPE received ſpecimens of this *Carex* from the "deep looſe ſand at the mouth of the water (or river) of Naver, and from near Skelherry in Dunroſneſs, in Shetland," whence it found a place in the *Flora Scotica*. Profeſſor Beattie has favoured us with ſpecimens from near Aberdeen. It flowers in July.

The root creeps. The ſtems are moſtly curved, 3 or 4 inches high, naked, ſimple, ſmooth. Leaves all radical, ſhorter than the ſtem, linear, channelled, ſmooth. Spike terminal, capitate, roundiſh, or rather conical, compoſed of ſeveral roundiſh ſeſſile ſpikelets, each of which conſiſts of a few female flowers in the lower part, and rather more numerous male ones above them. Bracteæ ſhorter than the ſpikelets, elliptical, concave, membranous, browniſh with a pale edge, ſlightly keeled. Glumes like them in form and colour, but rather more acute. Stamina 3, long and ſlender. Stigmas 2, browniſh. Fruit ovate, acute, green tinged with brown, ſmooth at the edge, and very ſlightly notched (not cloven) at the point.

The *C. juncifolia* of Allioni is the ſame with this ſpecies; but growing in alpine bogs, not expoſed to driving ſands or torrents, the ſtem is leſs frequently curved.





Act. as the Law directs Published July 1st 1794 by J. Sowerby London.

CAREX arenaria.

Sea Carex.

MONOECIA Triandria.

GEN. CHAR. Male, *Catkin* imbricated. *Cal.* of 1 ſcale. *Cor.* none. Female, *Catkin* imbricated. *Cal.* of 1 ſcale. *Cor.* none. *Stigmas* 2 or 3. *Seed* clothed with a ſwelling tunic.

SPEC. CHAR. Spikelets crowded, ſpiked, almoſt monoicous. Bracteæ membranous; the lower ones leafy. Stem triangular. Leaves flat.

SYN. Carex arenaria. *Linn. Sp. Pl.* 1381. *Sm. Fl. Brit.* 971. *Gooden. Tr. of Linn. Soc. v.* 2. 153. *Hudſ.* 405. *With.* 90. *t.* 20. *Hull.* 205. *Dickſ. H. Sicc. faſc.* 5. 14.

Gramini cyperoidi ex monte Ballon ſimile humilius, in maritimis et arenoſis naſcens. *Raii Syn.* 423.

VERY common in the looſe ſand of the ſea ſhore, where it may be found in flower in June and July.

The root creeps horizontally to a great extent, fixing itſelf by numerous fibres, and throwing up numerous ſtems, about a foot high, erect, except when they are overborne by the ſand, naked, with 3 ſharp angles, rougheſt in the upper part. Leaves ſeveral, ſheathing the baſe of the culm, upright, flat, rough on the edge, terminating in a long taper point. Spike ovate, compreſſed, compoſed of ſeveral, alternate, generally cloſe-ſet, ſeſſile, brown, ovate, many-flowered ſpikelets. Bracteæ lanceolate, keeled, membranous at the edge, the lower ones lengthened out into a leaf. Lower ſpikelets almoſt entirely compoſed of female flowers; upper of male ones, which in all the ſpikelets are ranged above the females. Glumes lanceolate, pointed. Stamina 3, capillary. Stigmas 2. Fruit ovate, acute, ribbed, bordered with a membrane on each ſide in the upper part, rough on the edge, tipped with a cloven point.

This *Carex* cooperates with the *Elymus arenarius*, *Arundo arenaria*, and ſome other graſſes of leſs note, in fixing the looſe barren ſands of the ſea ſhore, which its long entangled roots detain, and collect into banks, in time forming powerful ramparts againſt the ocean. See *v.* 8. *t.* 520.

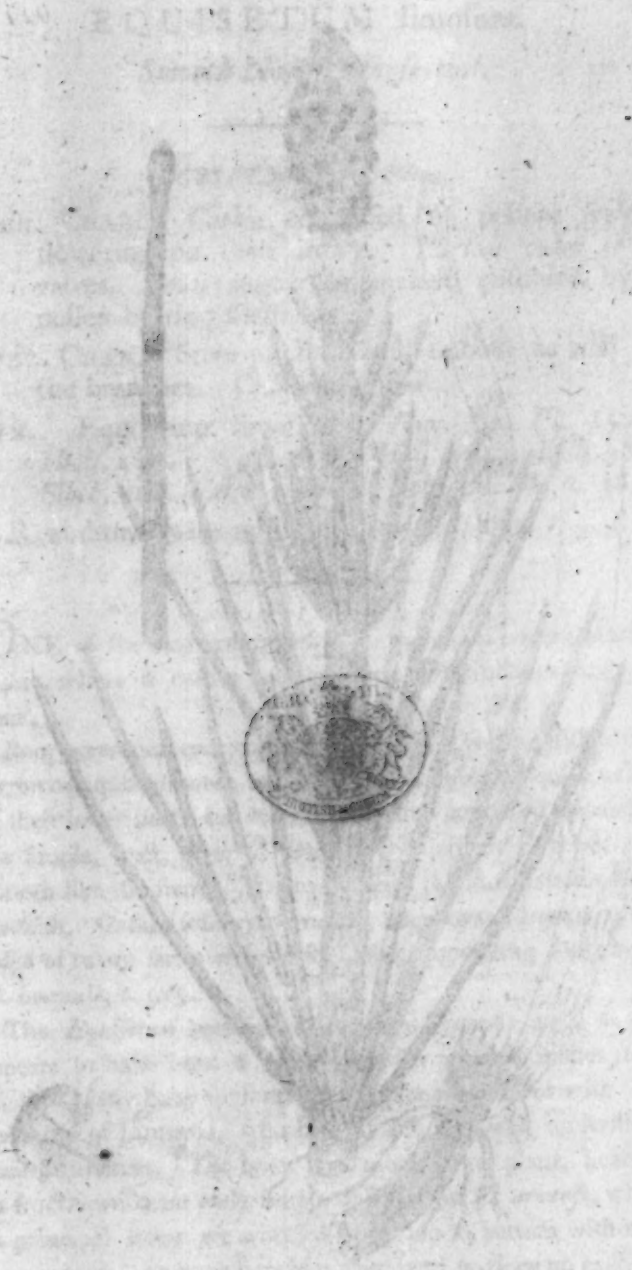
CAREX arenaria.

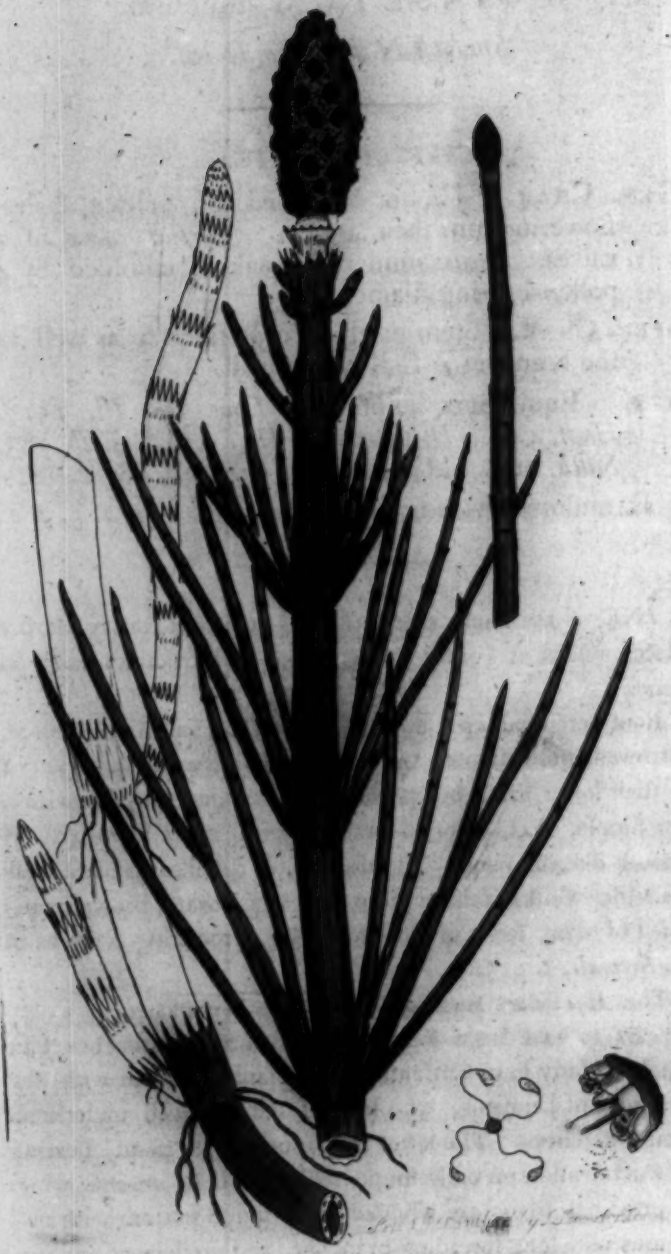
Sea Carex.

VERY common in the loose sand of the sea shore, where it may be found in flower in June and July.

The root creeps horizontally to a great extent, fixing itself in numerous fibres, and throwing up numerous stems, about a foot high, erect, obtuse when they are overborne by the sand, naked, with a few sheaths at the upper part. Leaves several, bearing strength of the stems, upright, flat, rough on the edge, commencing in a long taper point. Spike ovate, compressed, compound or branched, alternate, generally close-set, fertile, brown, with a few more inferior spikes. Bracteæ lanceolate, keeled, membranous at the edge, the lower ones lengthened out into a leaf. Lower fertile spikes pedunculated, the rest sessile. Upper spike of male ones, which in all the spikelets are ranged above the females. Glumes lanceolate, pointed, shorter than the ovate, acute, ribbed, brown, with a membrane on each side in the upper part, and a green keel, tipped with a short point.

This Carex corporates with the Grass of Parnassus, Arundo arenaria, and some other plants of less note, in fixing the loose, barren sands of the sea shore, with their long creeping roots deeply, and often a long way, running in the sand, and rampants against the storm. See t. 6. f. 5.





EQUISETUM limoſum.

Smooth Naked Horſe-tail.

CRYPTOGAMIA Filices.

GEN. CHAR. *Catkin* compoſed of peltate ſcales, flowering on their inſide. *Partial calyx* of 2 valves. *Seeds* numerous, naked, enfolded by 4 pollen-bearing filaments.

SPEC. CHAR. Stem partly naked, ſmooth as well as the branches. Catkin terminal.

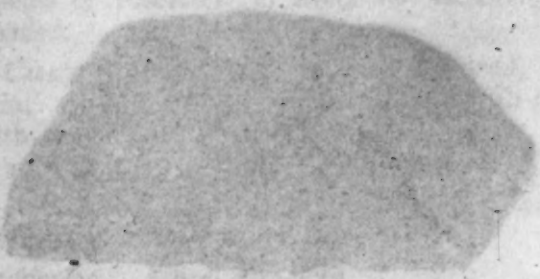
SYN. Equiſetum limoſum. *Linn. Sp. Pl.* 1517. *Hudſ.* 448. *With.* 755. *Hull.* 234. *Relh.* 385. *Sibth.* 264. *Abbot.* 222. *Bolt. Fil.* 68. *t.* 38.

E. nudum lævius noſtras. *Raii Syn.* 131. *t.* 5. *f.* 2.

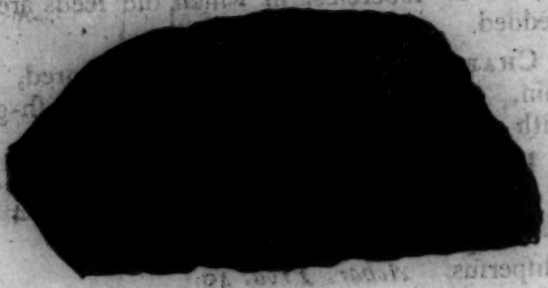
ONE of the moſt common of its genus in watery marſhy places, where it comes to perfection and fructifies early in June.

Root perennial, creeping. Stems erect, 2 feet high, jointed, furrowed, quite ſmooth to the touch, ſimple and quite naked in their lower part, but towards the top generally ſet with a few ſimple, erect, whorled branches, which are furrowed and ſmooth like the ſtem. The teeth of all the ſheaths are a little blackiſh. Catkin ſolitary, terminal, large, ovate, brown, compoſed of many ſeries of cloſe-ſet ſcales, producing ſeeds as in *E. hyemale*, *t.* 915.

The *Equiſetum* mentioned in Ray's Synopſis, 132, *n.* 12, appears to have been a ſpecimen with more branches than uſual. Many have confounded the plant before us with the *fluviatile* of Linnæus, who himſelf did not well underſtand their differences. The latter is a much larger plant, bearing its fructification on early ſimple ſtalks, as in *E. arvenſe*, while its principal ſtems are whorled from top to bottom with numerous very long ſpreading branches, and produce no catkins.







Sept 1. 1801 Published by Jas Sowerby London

LICHEN crenulatus.

Little Crenate Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, ſcattered warts. Female, ſmooth ſhields or tubercles, in which the ſeeds are imbedded.

SPEC. CHAR. Cruſt ſcattered, aſh-coloured, very thin. Shields minute, diſperſed, browniſh-gray, with an elevated, crenate, whitiſh margin.

SYN. Lichen crenulatus. *Dickſ. Crypt. faſc.* 3. 14. *t.* 9. *f.* 1. *Achar. Prod.* 76. *With. v.* 4. 17. *Hull.* 289.

L. diſperſus. *Achar. Prod.* 49.

FOUND on lime-ſtone rocks in the mountainous parts of England. The Rev. Mr. Harriman communicated this ſpecimen from Egleſton, Durham. Mr. Dickſon mentions Yorkſhire alſo as its native county. We have found it by authentic ſpecimens to be the *diſperſus* of Dr. Acharius, who, not being aware of its having been already deſcribed by Mr. Dickſon as *crenulatus*, gave it a new name. In juſtice to our friend we retain his original one, which is in itſelf excellent.

The cruſt is gray or blackiſh, but ſo thin and fugacious as not to be always diſcernible. Shields more or leſs ſcattered, a little raiſed, various in ſize, but all very ſmall; their diſk obſcurely convex, ſmooth, waxy, of a yellowiſh or browniſh gray; their margin very pretty and conſpicuous, elevated, rounded, ſmooth (not mealy), elegantly notched ſo as to look almoſt, as it were, beaded, of a pale yellowiſh white.

Mr. D. Turner has found on Burgh Caſtle, Suffolk, what ſeems a variety of this *Lichen* with a whiter cruſt and blacker ſhields; and indeed ſome ſhields on the Durham ſpecimens are found with a gray or lead-coloured margin.

LICHEN crenulatus.

Little Crenate Lichen.

CRYPTOGAMIA Alga.

Gen. Char. Male, scattered warts. Female, smooth shields or tubercles, in which the seeds are imbedded.

Spec. Char. Crust scattered, ash-coloured, very thin. Shields minute, dilated, brown-gray, with an elevated, crenate, whitish margin.

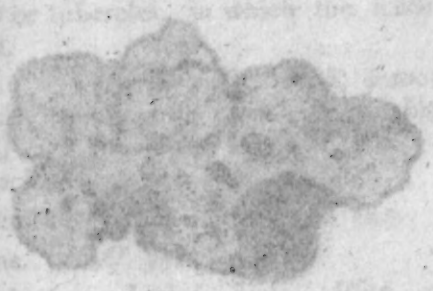
Syn. Lichen crenulatus. Dill. Cryp. fig. 3. t. 14. f. 9. Acharius. Prod. 99. Lamb. t. 4. f. 17. Hull. 289.

L. dilperfus. Achar. Prod. 49.

FOUND on lime-stone rocks in the mountainous parts of England. The Rev. Mr. Harriman communicated this specimen from Egleston, Durham. Mr. Dickson mentions Yorkshire also as its native county. We have found it by authentic specimens to be the dilperfus of Dr. Acharius, who, not being aware of its having been already described by Mr. Dickson as crenulatus, gave it a new name. In justice to our friend we retain his original one, which is in itself excellent.

The crust is gray or blackish, but so thin and fugacious as not to be always discernible. Shields more or less scattered, a little raised, various in size, but all very small; their disk obscurely convex, smooth, waxy, of a yellowish or brownish gray; their margin very pretty and conspicuous, elevated, rounded, smooth (not mealy), elegantly notched so as to look almost, as it were, beaded, of a pale yellowish white.

Mr. D. Turner has found on Burgh Castle, Suffolk, what seems a variety of this Lichen with a whiter crust and blacker shields; and indeed some shields on the Durham specimens are found with a gray or lead-coloured margin.











Oct. 1. 1801. Published by Jas. Sowerby, London.

LICHEN pellitus.

Fleecy Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, ſcattered warts. Female, ſmooth ſhields or tubercles, in which the ſeeds are imbedded.

SPEC. CHAR. Peltate, leafy, lobed, ſmooth, of a greeniſh copper-brown; beneath coal-black, and clothed with branching intricate hairs. Tubercles black, convex, plaited, intricate.

SYN. Lichen pellitus. *Achar. Prod.* 149.

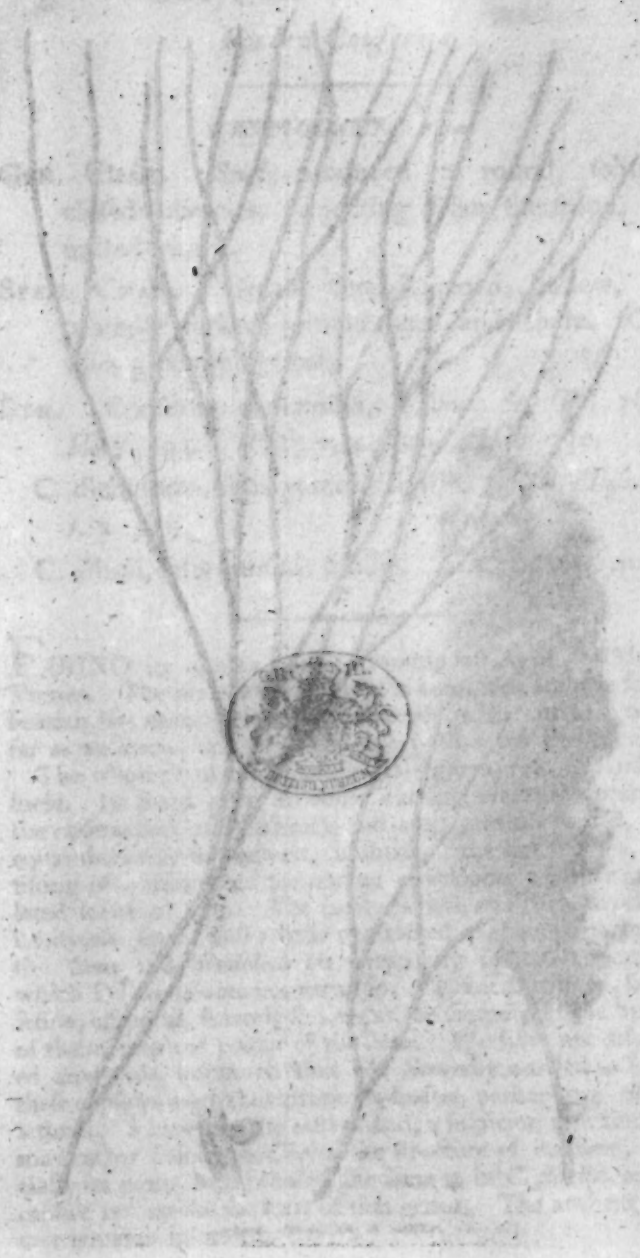
L. velleus. *Hudſ.* 550.

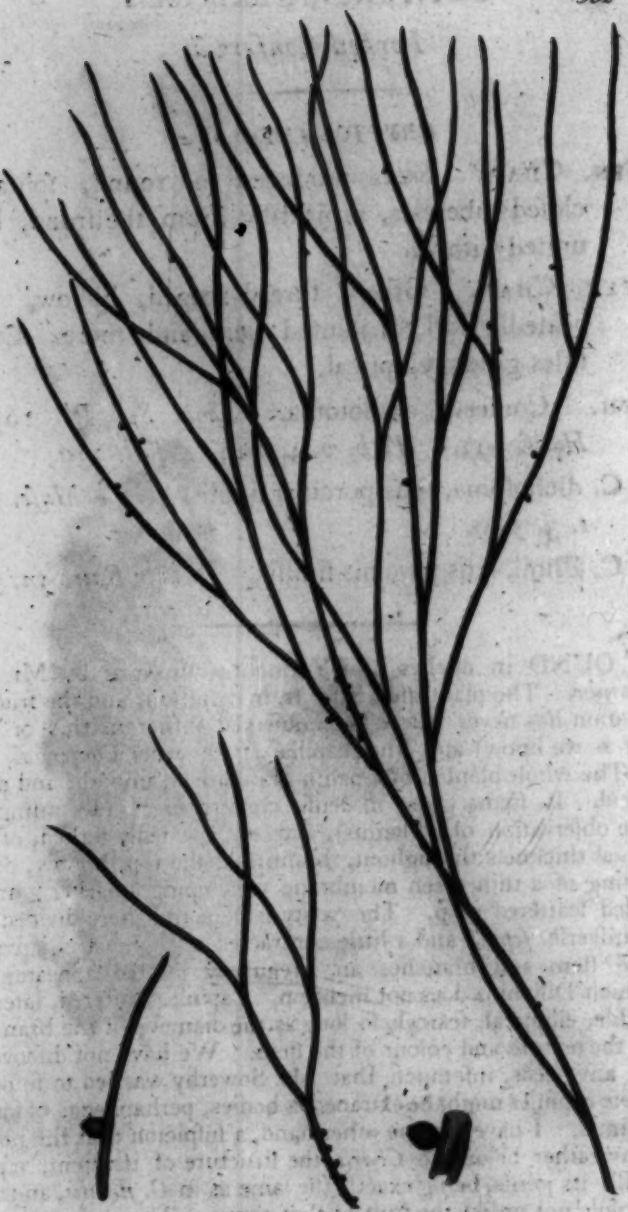
L. polyrrhizus. *Lightf.* 864. *With. v.* 4. 64. *Hull.* 302.

Lichenoides pullum ſuperne et glabrum, inferne nigrum et cirrhoſum. *Dill. Muſc.* 226. *t.* 30. *f.* 130.

THE ſingular tribe of umbilicate or peltate-fronded Lichens is almoſt entirely alpine, growing on expoſed rocks, each plant fixed by a very ſtrong central root or roots, the circumference being looſe, and in dry weather often curled inwards. We have hinted, *v.* 9. *p.* 593, that the fructification is peculiar in ſuch as properly conſtitute this natural tribe; indeed it might almoſt form a generic character, as will appear preſently.

This was ſent from Yorkſhire by Mr. W. Brunton, and from Durham by the Rev. Mr. Harriman. It grows alſo on the Welch and Highland mountains—always, we believe, on micaceous rocks. Linnæus confounded it with his *velleus*, which is a very different plant, of which we conceive *his polyrrhizos* to be a variety. *L. pellitus*, firſt well eſtabliſhed as a ſpecies by Dr. Acharius, is very much lobed, ſinuated, and notched; ſmooth, not wrinkled or veined; of a greeniſh or gray brown, varying to a copper-colour; often ſprinkled with branching black warts. Beneath it is black, entirely and uniformly covered with denſe branched coal-black hairs, which alſo fringe the margin. Tubercles rather rare, convex, black, formed of a multitude of plaited hair-like lines, but much more complicated and intricate than in any other umbilicated ſpecies.





Oct. 1. 1811. Published by Jas. Sowerby, London.

CONFERVA dichotoma.

Forked Conferva.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Seeds* produced in round, ſolitary, cloſed tubercles, projecting from the frond, but united with it.

SPEC. CHAR. Green, thread-ſhaped, hollow, repeatedly forked, jointed here and there. Capſules green, elliptical.

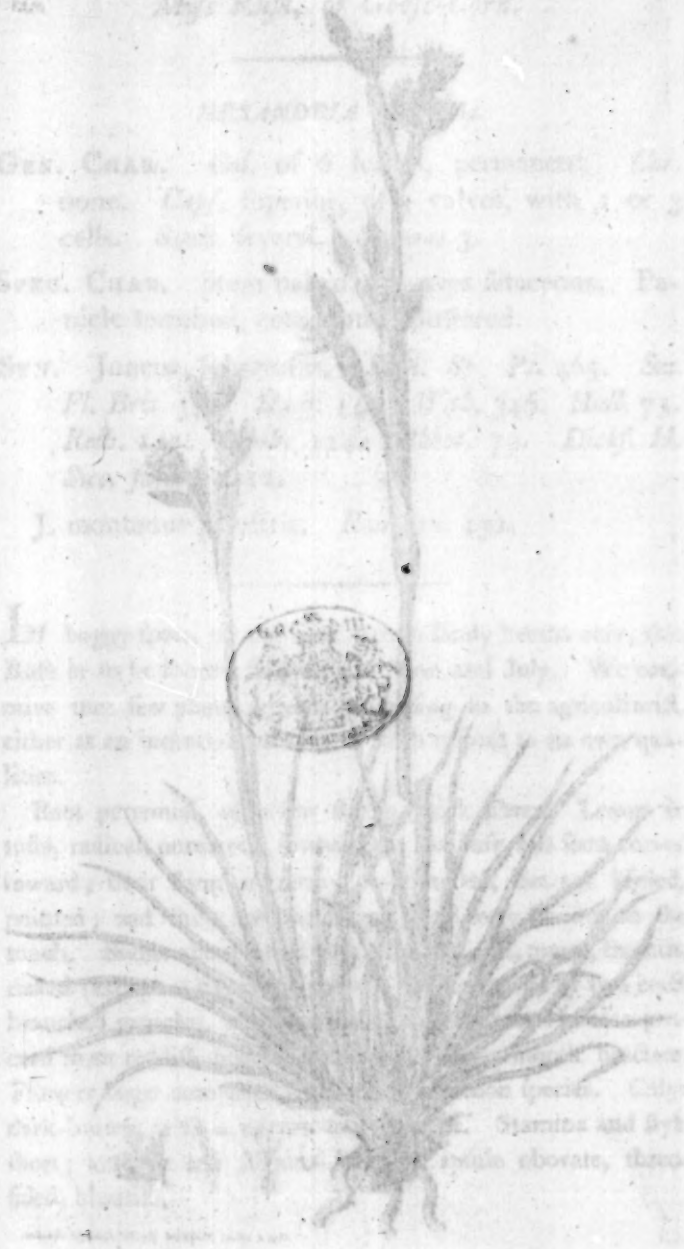
SYN. Conferva dichotoma. *Linn. Sp. Pl.* 1635. *Hudſ.* 593. *With. v.* 4. 129. *Hull.* 330.

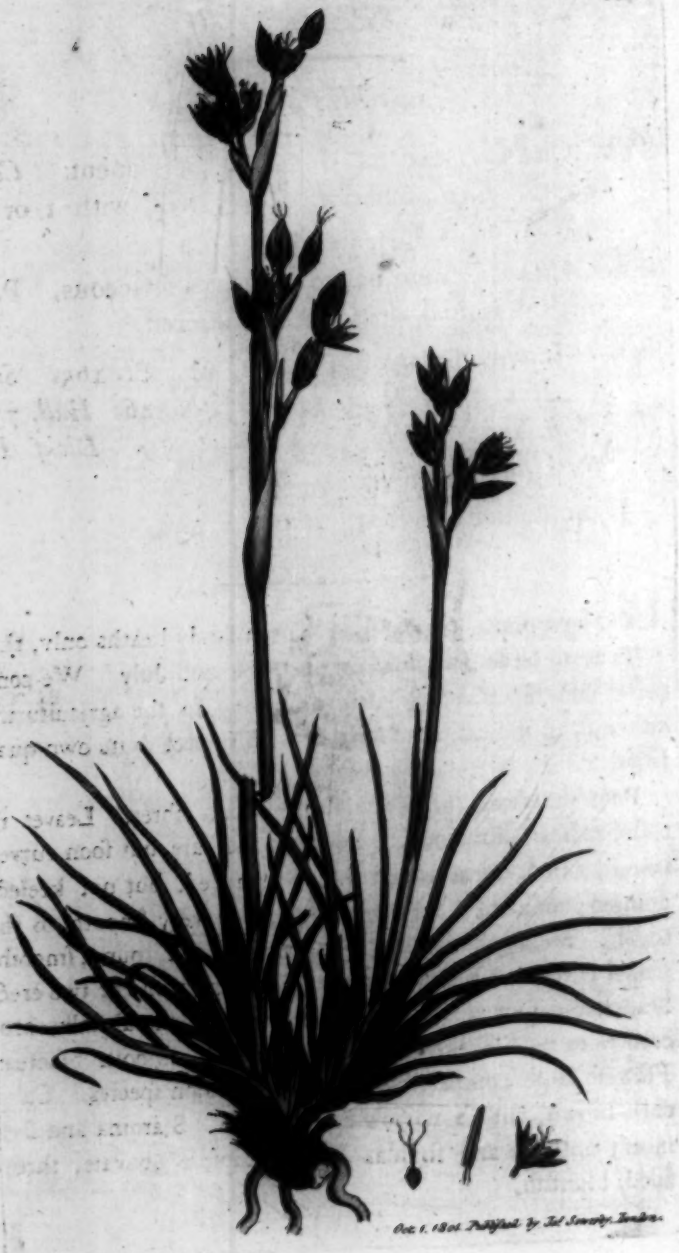
C. dichotoma, ſetis porcinis ſimilis. *Dill. Muſc.* 17. *t.* 3. *f.* 9.

C. Plinii, ſetis porcinis ſimilis. *Dill. in Raii Syn.* 58.

FOUND in ditches near Yarmouth laſt April by Mr. D. Turner. The plant itſelf is far from common, and the fructification has never before been obſerved, either in this or (as far as we know) any other capillary freſh-water *Conferva*.

The whole plant is of a paliſh graſs-green, ſmooth, and pellucid. Its ſtems grow in denſe cluſters, erect (according to the obſervation of Dillenius), and are repeatedly forked, of an equal thickneſs throughout, bluntiſh at the top, hollow, conſiſting of a thin green membrane enveloping a darker granulated ſcattered pulp. The cavity is here and there divided by tranſverſe *ſepta*, and a little contracted at thoſe parts, giving the ſtem and branches an irregularly jointed appearance, which Dillenius does not mention. Capſules ſcattered, lateral, ſeſſile, elliptical, ſcarcely ſo long as the diameter of the branch, of the texture and colour of the ſtem. We have not diſcovered any ſeeds, inſomuch that Mr. Sowerby was led to ſuſpect theſe capſules might be extraneous bodies, perhaps eggs of ſome animal. I have, on the other hand, a ſuſpicion that the plant may rather belong to *Chara*, the ſtructure of its ſtem, eſpecially its joints, being exactly the ſame as in *C. flexilis*, and the capſule not unlike the fruit of that genus. The anthera however remains unknown.





Oct. 1. 1801. Published by Jas Sowerby London.

JUNCUS ſquarroſus.

Moſs Ruſh, or Gooſe-Corn.

HEXANDRIA Monogynia.

GEN. CHAR. *Cal.* of 6 leaves, permanent. *Cor.* none. *Capſ.* ſuperior, of 3 valves, with 1 or 3 cells. *Seeds* ſeveral. *Stigmas* 3.

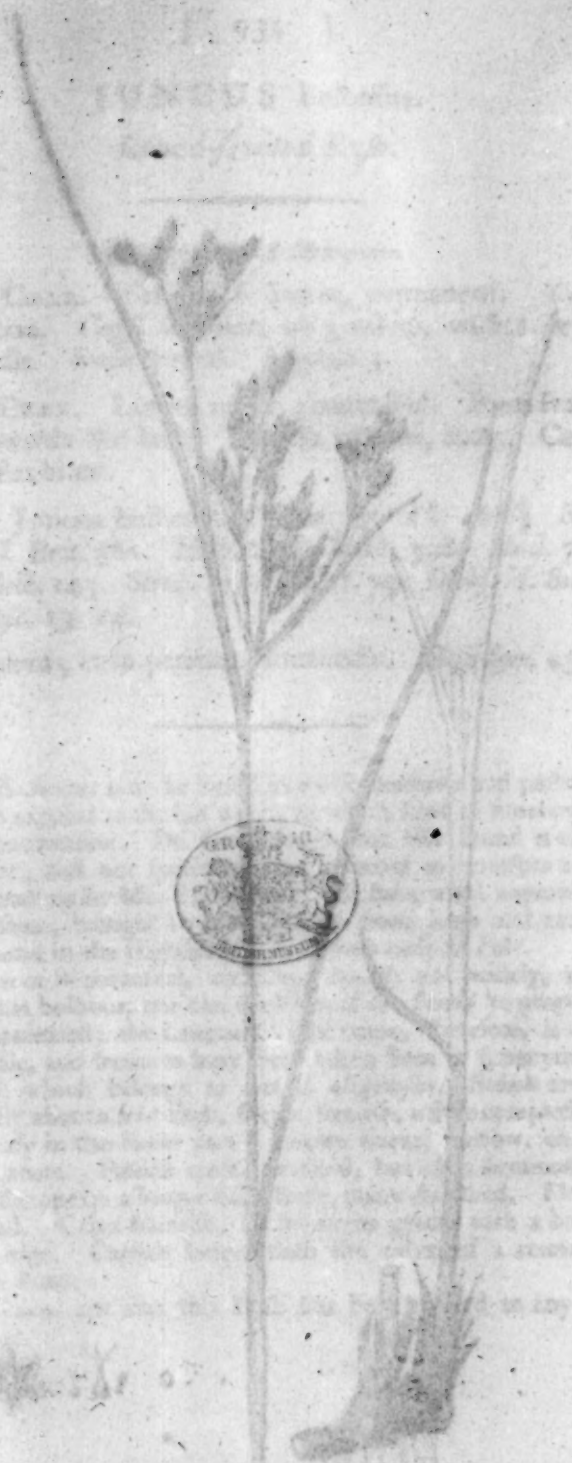
SPEC. CHAR. Stem naked. Leaves ſetaceous. Panicle terminal, compound, cluſtered.

SYN. Juncus ſquarroſus. *Linn. Sp. Pl.* 465. *Sm. Fl. Brit.* 378. *Hudſ.* 149. *With.* 346. *Hull.* 75. *Relh.* 142. *Sibth.* 114. *Abbot.* 79. *Dickſ. H. Sicc. faſc.* 13. 12.

J. montanus paluſtris. *Raii Syn.* 432.

IN boggy ſpots, on the moſt barren ſandy heaths only, this Ruſh is to be found, flowering in June and July. We conceive that few plants are leſs promiſing to the agriculturiſt, either as an indication of ſoil, or with reſpect to its own qualities.

Root perennial, of a few ſtrong thick fibres. Leaves in tufts, radical, numerous, ſpreading at the baſe, but ſoon curved inward; their form is narrow, channelled, but not keeled, pointed; and they are hard, rigid, and very ſmooth to the touch. Stems about a foot high, ſtraight, ſtiff, round, ſmooth, naked (except at the very bottom), ending in one or two erect branched panicles, whoſe partial as well as general ſtalks proceed from reddiſh-brown, ſheathing, long, ſmooth bracteæ. Flowers large compared with other common ſpecies. Calyx dark-brown, with a narrow filmy border. Stamina and ſtyle ſhort; antheræ and ſtigmas long. Capſule obovate, three-ſided, bluntiſh.





JUNCUS bulboſus.

Round-fruited Ruſh.

HEXANDRIA Monogynia.

GEN. CHAR. *Cal.* of 6 leaves, permanent. *Cor.* none. *Capſ.* ſuperior, of 3 valves, with 1 or 3 cells. *Seeds* ſeveral. *Stigmas* 3.

SPEC. CHAR. Leaves linear, channelled. Stem leafy towards the baſe. Panicle cymoſe, leafy. Capſules blunt.

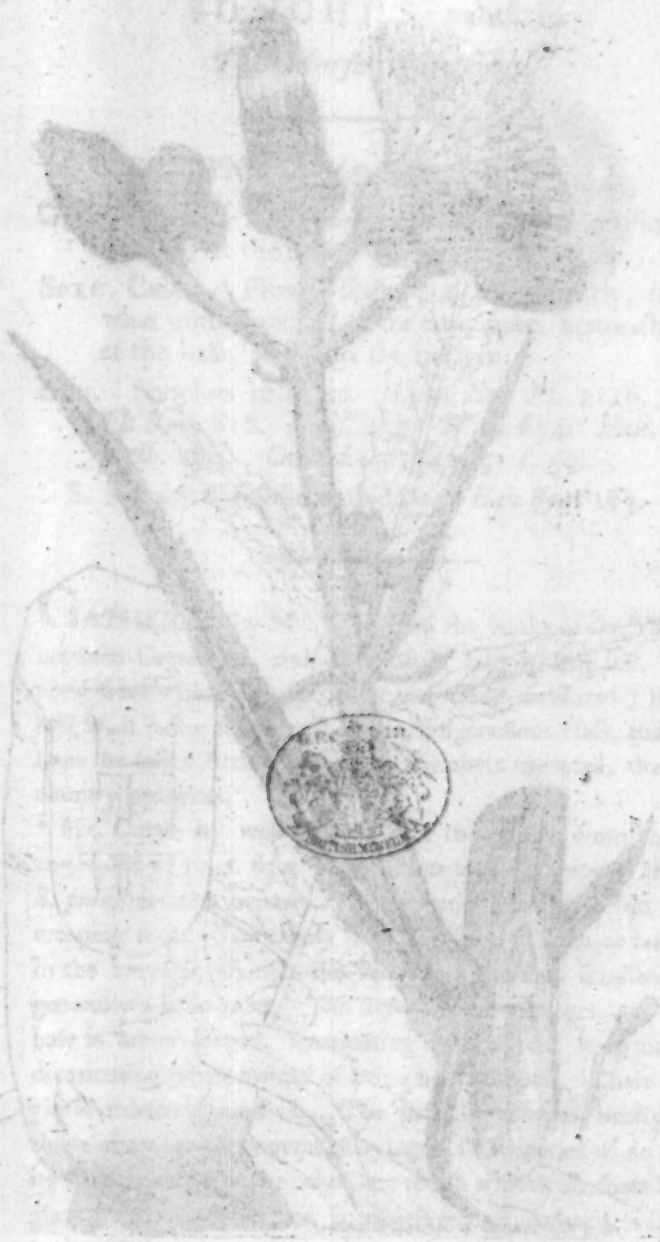
SYN. Juncus bulboſus. *Linn. Sp. Pl.* 466. *Sm. Fl. Brit.* 381. *Hudſ.* 150. *With.* 348. *Hull.* 76. *Relh.* 143. *Sibth.* 115. *Abbot.* 79. *Dickſ. H. Sicc. faſc.* 13. 14.

J. parvus, cum pericarpiis rotundis. *Raii Syn.* 433.

THIS *Juncus* is to be found in moiſt meadows and paſtures that are expoſed to the ſalt water, in which kind of ſituation it is not uncommon. Dr. Goodenough has alſo found it near Windſor; and our ſpecimen was gathered in marſhes near Walthamſtow by Mr. E. Forſter. We have what appears to be the ſame, brought by Mr. Dickſon from high and rather dry ground in the Highlands. It flowers early in July.

The root is perennial, creeping, though not widely, certainly not bulbous, nor can the baſes of the ſtems be properly ſo denominated: the Linnæan trivial name, therefore, is unjuſtifiable, and ſeems to have been taken from a ſynonym of Micheli which belongs to our *J. uliginoſus*. Stems erect, generally about a foot high, ſimple, ſmooth, a little compreſſed, moſt leafy in the lower part. Leaves linear, narrow, channelled, acute. Panicle erect, terminal, but often ſurmounted by a leſſer one on a longer ſtalk, leafy, many-flowered. Flowers ſmall. Calyx bluntiſh, its ſegments green with a broad brown edge. Capſule longer than the calyx, of a roundiſh obovate form.

We know not that this Ruſh has been applied to any uſe whatever.





Oct. 1, 1820. Published by Jas. Sowerby, London.

SONCHUS paluſtris.

Tall Marſh Sow-thiſtle.

SYNGENESIA Polygamia-æqualis.

GEN. CHAR. *Receptacle* naked. *Calyx* imbricated, ſwelling at the baſe. *Down* ſimple, ſeſſile.

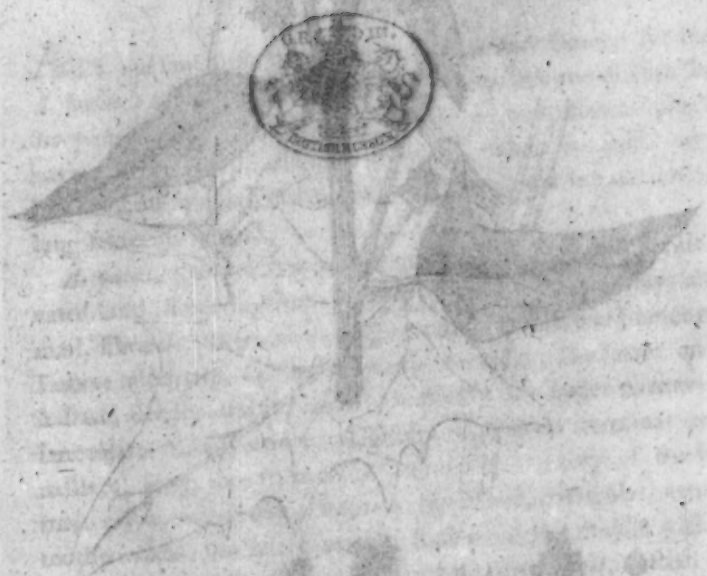
SPEC. CHAR. Flower-ſtalks and calyx briſtly, ſomewhat umbellate. Leaves runcinate, arrow-ſhaped at the baſe, rough in the margin.

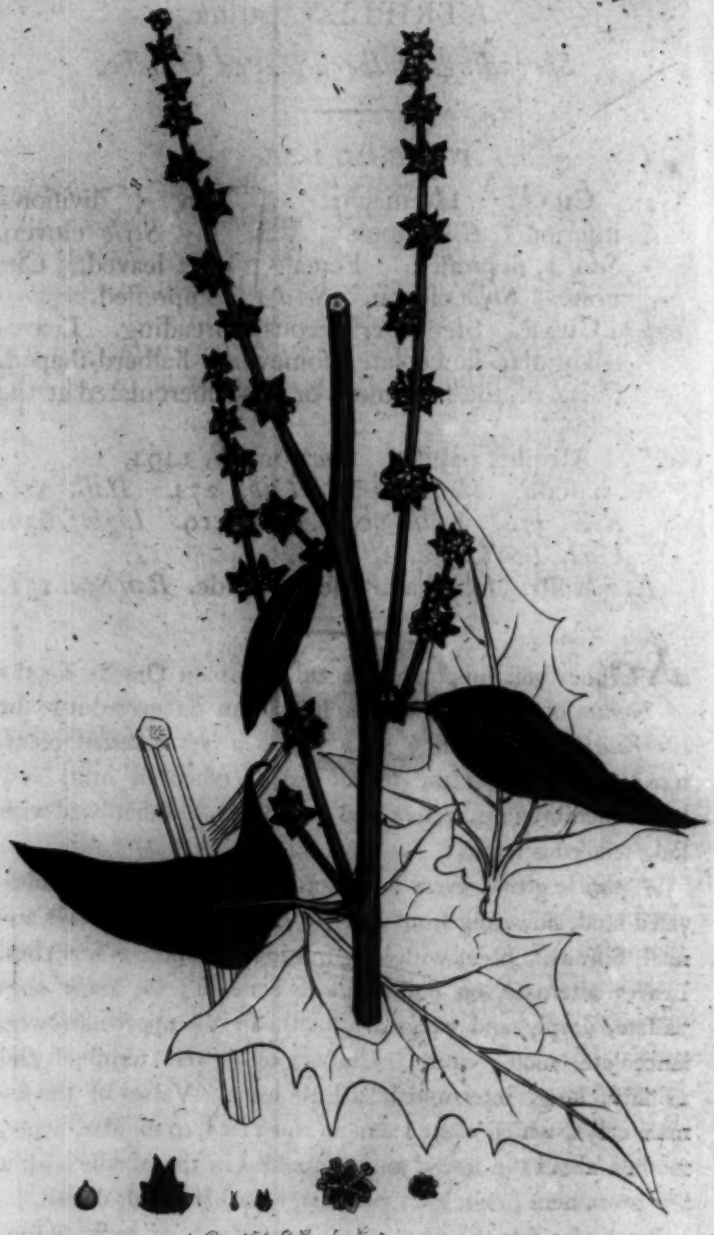
SYN. Sonchus paluſtris. *Linn. Sp. Pl.* 1116. *Sm. Fl. Brit.* 816. *Hudſ.* 337. *With.* 674. *Hull.* 177. *Relh.* 292. *Curt. Lond. faſc.* 5. *t.* 59.

S. tricubitalis, folio cuſpidato. *Raii Syn.* 163.

GATHERED by Mr. Groult on the banks of the Thames between Greenwich and Woolwich, late in July laſt. The plant from which our ſpecimen was taken meaſured 7 feet in height, it being the largeſt of the Syngeneſious claſs, and perhaps the talleſt herbaceous plant, climbers excepted, that this country produces.

Mr. Curtis has well diſtinguiſhed this ſpecies from the *arvenſis*, ſee *v.* 10. *t.* 674, in oppoſition to the opinion of Haller. *S. paluſtris* has a perennial, fleſhy, and branched, but not a creeping root. The whole herb is twice or thrice as large as in the *arvenſis*, though the flowers are rather ſmaller, and generally a little paler. The ſtem-leaves are longer, and their baſe is arrow-ſhaped, terminating in a pair of long narrow divaricating lobes, inſtead of being heart-ſhaped. Their margin is minutely toothed. The panicle aſſumes nearly the ſhape of an umbel or cyme, varying in the number of flowers: its ſtalks, as well as the calyx, are rough with denſe ſhort black glandular hairs or briſtles, in which reſpect, as well as in the ſeeds and their down, it much agrees with *S. arvenſis*.





ATRIPLEX patula.

Spreading Halberd-leaved Orache.

POLYGAMIA Monoecia.

GEN. CHAR. Hermaphr. *Cal.* in 5 diviſions, inferior. *Cor.* none. *Stam.* 5. *Style* cloven. *Seed* 1, depreſſed. Female. *Cal.* 2-leaved. *Cor.* none. *Style* cloven. *Seed* 1, compreſſed.

SPEC. CHAR. Stem herbaceous, ſpreading. Leaves triangular-lanceolate, ſomewhat halberd-ſhaped. Calyx of the fruit more or leſs tuberculated at the ſides.

SYN. Atriplex patula. *Linn. Sp. Pl.* 1494.
A. haſtata. *Hudſ.* 443. *With.* 274. *Hull.* 226. *Relh.* 379. *Sibth.* 90. *Abbot.* 219. *Lightf.* 636. *Curt. Lond. faſc.* 2. *t.* 66.
A. ſylveſtris, folio haſtato ſeu deltoide. *Raii Syn.* 151.

ALL our botaniſts had taken this common Orache for the *A. haſtata* of Linnæus, till his herbarium diſcovered it to be his *patula*. The real *haſtata* proves a very different plant, having the valves of the female calyx, when in fruit, very large, membranous, reticulated with veins, and bordered with long ſetaceous teeth.

A. patula grows every where on dunghills, waſte or cultivated land, flowering from June to Auguſt. Root always annual, fibrous. Stem with long ſpreading numerous branches. Leaves alternate, on ſtalks, mealy beneath; the lower ones haſtate, deeply and irregularly toothed; the upper narrower, lanceolate, moſtly entire. Cluſters of flowers terminal and axillary, long, interrupted, a little leafy. Valves of the female calyx, which alone ſeems to ripen ſeed, triangular, acute, toothed about the lateral angles, ſtudded in the middle with a few prominent tubercles. Seed large, rather ſpiral, dotted.

By the ſea-ſide the whole plant is procumbent, more fleſhy, reddiſh, and all the leaves ſometimes entire.